# PUBLIC ATTITUDES TOWARD B.C. HYDRO

*A Research Report*

*for*

**B.C. HYDRO**

*Project #889171*

*January, 1989*

GOLDFARB CONSULTANTS

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# INTRODUCTION

## I. PURPOSE

After careful discussion with personnel from B.C. Hydro, a research design was planned and implemented. This was a tracking study updating results and findings from a similar study conducted in February, 1988. The main objective of the study was to conduct research and analysis into public expectations with respect to planning British Columbia's power system for the future. More specifically, the objectives include:

* to provide B.C. Hydro with an understanding of the major issues of concern to British Columbian residents, particularly in the energy and environmental areas
* to provide B.C. Hydro management with an understanding of how British Columbia residents view B.C. Hydro; what they know about Hydro, how it operates, how it is regulated and how its rates are set
* to focus on the customers' view of the quality of service provided by B.C. Hydro and on the components of service which are most important to the customer
* to provide attitudinal data reflecting B.C. Hydro's customers' views on energy and electricity planning
* to determine consumer's energy preferences and anticipated consumption patterns in the future
* to ascertain the role of electricity within this context as well as B.C. Hydro's contribution in meeting these requirements
* to determine public awareness and acceptability of demand/supply options as well as the factors that contribute to these perceptions
* to determine the extent to which corporate performance is consistent with the needs and expectations of B.C. Hydro's consumers.

## II. METHODOLOGY

For this study, six hundred (600) interviews were conducted among residential consumers. This sample is a province wide random sample which was designed to conform with B.C. Hydro's operating regions. The data for this sample was weighted in the computer analysis to properly reflect the relative overall population contribution of each region. Results of a sample of this size are statistically reliable to within plus or minus 4% nineteen times out of twenty.

Interviews were conducted on a personal, in home, face to face basis. Personal interviewing permits the interviewer to assess respondent reactions and to challenge any conflicting responses expressed. It permits the establishment of an interviewer-interviewee rapport which can lessen the burden and fatigue of a lengthy interview. Finally, the personal interview contributes to the quality of the data collected.

Interviewers in each market were carefully instructed about sampling procedures and interviewing techniques. They were made fully aware of the implications of their work and the possible pitfalls to be avoided in the varying techniques of the research design.

Using random starting points throughout each of the sampling areas designated for the study, and methods of selecting households and household members at random, people were chosen to be interviewed.

Interviewing was conducted during late December, 1988.

## III. TABULAR RESULTS

The tabular results shown in the computer printout are based on the following actual and weighted sample sizes.

| | Actual Sample Size | Weighted Sample Size |
|---|---|---|
| **TOTAL** | 595 | 600 |
| **REGION** | | |
| Vancouver | 275 | 336 |
| Vancouver Island | 124 | 121 |
| Northern Interior | 98 | 51 |
| Southern Interior | 98 | 92 |
| **SEX** | | |
| Male | 291 | 295 |
| Female | 304 | 305 |
| Working female | 135 | 138 |
| **AGE** | | |
| Under 35 | 223 | 225 |
| 35 or over | 370 | 373 |
| **INCOME** | | |
| Under $20,000 | 127 | 124 |
| $20,000 - $34,999 | 139 | 140 |
| $35,000 or over | 173 | 166 |
| **RESIDENCE** | | |
| Rent | 236 | 257 |
| Own | 354 | 338 |
| **HOUSEHOLD** | | |
| Union | 208 | 203 |
| Non union | 379 | 388 |

| | Actual Sample Size | Weighted Sample Size |
|---|---|---|
| **CONSERVATION ORIENTATION*** | | |
| Strong | 240 | 270 |
| Moderate | 248 | 246 |
| Weak | 102 | 104 |
| **HYDRO IMAGE** | | |
| Favourable | 506 | 508 |
| Unfavourable | 73 | 74 |
| **CONSUMER ORIENTATION*** | | |
| Demand side options | 189 | 197 |
| Supply side options | 255 | 250 |
| **ENVIRONMENTAL ACTIVISTS*** | 228 | 235 |
| **EDUCATION** | | |
| No post secondary education | 305 | 303 |
| Some post secondary education | 284 | 290 |

**For Conservation Orientation, Consumer Orientation and Environmental Activists, definitions see heading "Definitions Of The Segments".*

Definitions Of The Segments

We defined conservation orientation segments by Section One, Question 3. Respondents were segmented into three groups according to how they rated their awareness of conserving electricity. Weak conservers rated themselves 1/2/3/4 on the conservation scale, moderate conservers rated themselves 5/6/7 and strong conservers rated themselves 8/9/10.

We defined consumer orientation segments by Section One, Question 9. Respondents who suggested that B.C. Hydro should encourage the conservation of electricity to reduce the need to build new generating stations are defined as demand side advocates while those who are in favour of greater use of electricity as an economical, reliable energy source are classified as supply side advocates.

We defined environmental activists by Section Five, Question 4. Respondents who said that they had taken any of the following actions to demonstrate concern about environmental issues were classified as environmental activists:

* writing letters to an elected official
* writing letters to a newspaper
* contributing to environmental concern groups
* participating in a protest of an environmental nature
* participating in or attending an environmental hearing.

## OVERVIEW SUMMARY

### The Energy Outlook

- Future expectations are that British Columbia's electricity requirements will increase significantly in the next five years. Four in five (84%) expect that B.C. will have a "much greater" or "somewhat greater" need for electricity in the next five years. This is up sharply from one year ago when three in four (74%) expressed this opinion.

- In addition, on balance, people are clearly more likely to feel that their personal household electricity needs will increase (42%) rather than decrease (10%). The proportion expecting their household use to increase is up slightly from a year ago to 42% from 36%.

- Overall, the expectation and outlook is for continuing steady growth in demand for electricity in the province.

- There is also evidence that British Columbians are beginning to feel a little bit less secure about the supply of electricity as they look ahead to the next few years. Compared with one year ago, fewer British Columbians believe that B.C. has more generating capacity than it needs (down to 42% from 51% ).

### Attitudes Toward Electricity Versus Other Fuels

- British Columbians continue to have a positive impression of electricity as a source of energy both for the present and for the future. Electricity stands out as the energy source which:

    * is most abundant
    * can provide greatest security for British Columbia's energy needs and well being in the future
    * has the biggest role to play in the future industrial and economic development of the province.

- However, generally speaking, fewer people are likely to hold these views than they were a year ago.

- Despite this, electricity is still considered a cornerstone of British Columbia's resource wealth and future economic and industrial development and success. It is considered a key asset for the province.

- Natural gas, on the other hand, continues to have the edge over electricity when it comes to the key issue of pricing. Natural gas stands out ahead of electricity as the fuel that:

    * is the least expensive
    * is likely to be the least expensive in ten years.

- Moreover, trend data indicates that natural gas is gaining ground against electricity as the energy source that :

    * B.C. should be relying more on in future
    * has the biggest role to play in the future industrial and economic development of the province
    * is the power source that can provide greatest security for B.C.'s energy needs in future.

Attitudes Toward And Involvement In Conservation

- British Columbia residents have become quite energy conservation conscious to the point where conservation oriented behaviour has become a permanent fixture of their lifestyle.

- This is reflected in the way in which consumers perceive themselves and rate themselves on a one to ten conservation scale where ten is the highest possible rating. Given this scale, the average electricity conservation orientation of B.C. residential consumers is at a level of 6.6, comparable to the 6.3 level reported a year ago.

- As in 1988, approximately one in two (52%) respondents indicate that lately, they have been paying more attention to the amount of electricity conservation they practice. This compares with 47% who so responded in 1988.

- It is the more direct, tangible, monetary benefit of conservation that is most relevant to people when they think of the benefits of conservation measures, that is, the main motivation for energy conservation is to save money (63%).

- There is a fairly widespread belief, as well, that the efforts of individuals in conserving electricity can be at least moderately effective (60%) in helping to hold electricity rates down.

- Consumers admit, however, that there is still room for them to make some further cutbacks in their electricity consumption. More specifically:

    * British Columbians indicate they could cut back their overall electricity consumption by an average of 11% by taking various conservation measures.

    * The average monthly savings required to encourage people to cut back is down from one year ago to 14% from 20%. But, consumers are still looking for fairly substantial savings or incentives to encourage them to achieve these kinds of electricity use reductions.

Most Important Issues Facing B.C. Hydro

- The most important issues that British Columbians see facing B.C. Hydro today are:

    * the need to keep rates down and the associated need to keep B.C. Hydro's operating costs down
    * the need to meet demand for electricity in the future
    * the environmental implications of electricity generation.

- These issues continually surface as priority concerns for B.C. Hydro throughout this study.

B.C. Hydro's Corporate Image

- B.C. Hydro has a strong and positive image among B.C. consumers and that image has strengthened even further over the past year. More than four in five respondents (85%) have a very favourable or somewhat favourable impression of B.C Hydro, up from 66% a year ago.

- Those most likely to have an unfavourable impression of B.C. Hydro include:

    * opponents of electricity exports (19% say very/somewhat unfavourable)
    * residents of Vancouver Island (17%)
    * demand side advocates (17%)
    * environmental activists (16%).

- When respondents were asked what one thing they most like, or are most favourably impressed with about B.C. Hydro, good quality service, both in terms of its reliability and its quick repair, are what people most like about B.C. Hydro.

- Sensitivity about rates continues to stand out as the single most often cited reason for having an unfavourable impression of the corporation.

- In in-depth image evaluation, the image attributes B.C. Hydro scores most favourably in are the following:

    * Provides reliable electricity service
    * Is fast to restore power when outage comes
    * Uses the most up-to-date modern equipment
    * Has very few power outages
    * Treats a customer in a friendly way whenever the customer telephones B.C. Hydro or goes to a B.C. Hydro office
    * Generates electricity in an environmentally safe way
    * Is very customer service oriented

- The image areas in which B.C. Hydro receives its weakest or most negative ratings are:

    * Encourages meaningful public participation in decision-making about projects, plans
    * Does a good job of keeping electricity rates down
    * Has rates that are reasonable
    * Is open, honest with the public about its operations
    * Is a lean, efficiently operated organization
    * Has a genuine respect or concern for the environment

- These continue to be the key image areas in which B.C. Hydro most needs to improve its performance.

- The portrait that emerges from this data has changed very little in the past year:

  * B.C Hydro is, first and foremost, a company which provides reliable electricity service and, when service breaks down, it is fast to restore power. On the fundamental priority of all customers, namely is there electricity available when they turn on a switch, B.C. Hydro does very well. Average rating on the characteristic of being fast to restore power when an outage occurs is 7.6 out of 10 and of having very few power outages is 7.0.

  * B.C Hydro is seen as a modern, up to date company in terms of the equipment it uses (7.1) and even as being a world leader in its field (6.0).

  * Overall, B.C. Hydro has a reasonably good relationship with the public at large (6.2). In addition, it gets a reasonable average rating for being customer service oriented (6.4) and for treating a customer in a friendly way whenever he/she telephones B.C. Hydro (7.1).

  * There is a view that B.C Hydro is not entirely open and honest with the public (5.5). However, Hydro's performance in this regard has improved since February, 1988.

- * In addition to this perceived lack of openness, the average rating given for encouraging meaningful public participation in decision making about major projects is also low (5.0).

  * Rating for environmental issues such as "generates electricity in an environmentally safe way" (6.3) and "has a genuine respect or concern for the environment" (5.9) are mediocre.

  * B.C. Hydro has an acceptable image in terms of being well managed (6.3) and having good employee morale (6.4). However, it is also seen as being a little fat receiving an average rating of 5.7 on the characteristic of being a lean efficiently operated organization and 5.2 average rating on the characteristic of being overstaffed.

  * B.C. Hydro also gets fair marks for doing a good job in terms of forecasting future power needs (6.1).

  * People generally, although not overwhelmingly, believe that B.C. Hydro operates in the best interest of B.C. (6.2) and that it is not hampered by government interference (5.8).

* On the issue of rates, B.C. Hydro does less well, having an average rating of only 5.0 on the characteristic of doing a good job of keeping rates down.

* Although rates are a big concern, most people who are concerned about rates admit that B.C. Hydro provides good value for money (6.0).

Financial Management And Administration

- B.C. Hydro has a fair to average image in terms of the way it is managed.

- It is in the area of controlling internal, administrative costs that B.C. Hydro is regarded as weakest.

- Trend data, however, indicates a positive improvement in the public's evaluation of B.C. Hydro's efficiency rating over a year ago in each of the categories evaluated.

Customer Service

- B.C. Hydro continues to have a good service image. On a scale of one to ten, where ten represents extremely good service, B.C. Hydro receives a rating of 7.5, comparable to the 7.6 rating it received a year ago. This is, again, the best rating of the four organizations evaluated. Canada Post received a rating of 5.0, B.C. Tel 7.0, and natural gas service 7.2.

- It should be noted that the manner in which complaints are handled has improved significantly. The level of dissatisfaction is down from 61% in February 1988 to 44%. Although this is a positive change, there is still room for improvement in this regard.

- The biggest reason for lodging a complaint remains billing problems.

- Respondents were also given a list of twelve aspects or components of service and asked, for each component, to rate firstly, how important that component is to them and secondly, how satisfied they are with the way Hydro delivers that component of service.

- The difference or gap between the importance rating and the satisfaction rating was then calculated. Hydro should focus on improving service on those components for which the gap between service expectations and customer service satisfaction is greatest. These areas include:

    * keeping electricity rates reasonable
    * encouraging public and customer input in decision-making
    * operating with the best interests of the British Columbia public in mind
    * keeping you informed about B.C. Hydro activities in your local area
    * being a good corporate citizen
    * handling customer inquiries, complaints in an efficient, prompt, courteous manner.

- The biggest difference between the importance of a component of service and satisfaction with that component is on the issue of keeping electricity rates reasonable.

- The next biggest differences come from a cluster of issues which relate to Hydro's public information programs and the way Hydro handles customer inquiries and complaints. It is in this area that Hydro needs to strengthen its position.

- It is important to note that of the two components of service which receive the highest importance ratings -- reliable supply and fast restoration of power -- Hydro also gets the highest satisfaction rating. Clearly in these areas Hydro is doing very well.

Attitudes Toward Rates

- Little has changed in the perception of the reasonableness of B.C. Hydro's rates in the past year. Generally, they are still considered to be fairly reasonable and a good value. However, there is a significant minority (26%) who do not think that B.C. Hydro's rates are that good a value and this is something the corporation should be sensitive to. There is a continuing need to improve customer perceptions about the value they are getting for the money in their rates.

- On average, British Columbians say that they expect electricity rates to increase at a rate of 6.1% for the next few years. That is, they are expecting electricity rate increases to be at or above the current rate of inflation.

- When asked what a reasonable increase in electricity rates would be, the average response given was 2.5%. This is less than half of the rate increase that people actually expect.

- As was the case last year, the 1989 data indicates that a rate increase or decrease below 5% has only a moderate affect on consumption. Consumption begins to be significantly affected, that is, curbed or increased, only when the rate increase begins to exceed 5%. That is, 5% seems to be a threshold level.

Corporate Priorities

- With respect to planning for British Columbia's future electricity needs, the priorities established for B.C. Hydro by British Columbians parallel those of a year ago. In order of priority, they are as follows:

    * Meeting demand must remain a top priority of B.C. Hydro. It is essential if B.C. Hydro is to be able to meet its customers expectations for reliable service.

    * Minimizing pollution or negative effects on the environment is also a top priority. The environment is growing in importance as a major public concern in British Columbia and B.C. Hydro must be seen to be responding to this increased concern.

* B.C. Hydro must position itself as an environ-mentally responsible corporate citizen of the province.

* The other two objectives -- keeping rates down and promoting conservation -- virtually tie for third place among the corporate objectives tested.

B.C. Hydro's Mandate As A Marketer Of Electricity

- Consistent with findings from the 1988 survey, the consensus is that B.C. Hydro's marketing efforts should not be aimed solely at promoting conservation or solely at encouraging greater use of electricity. Rather, British Columbians believe that B.C. Hydro's marketing efforts should address both the objectives of:

  * promoting more efficient use of electricity

  * promoting greater use of electricity for applications for which it is well suited.

Consumer Response To Specific Demand Side Options

- There is very strong and very widespread support (81%) for B.C. Hydro offering a system of financial incentives to residential consumers and industry encouraging the conservation of electricity and more efficient use of electricity.

- The vast majority of B.C. residents (84%) feel that, if financial incentives are offered encouraging conservation or the more efficient use of electricity, they should be offered to both private individuals and business.

- There is also an overwhelming view (82%) that financial incentives for encouraging conservation and the more efficient use of electricity should be offered to all consumers and not only to lower income families.

- Respondents were given a list of four different types of financial incentives that could be offered to residential consumers, businesses and industry to encourage them to use electricity more effectively and thereby help keep rates down. Response indicates that there is widespread support for Hydro offering all of these types of incentives to encourage people to use less electricity.

- Support is highest for the following types of incentives:

  * offering grants to residential customers to improve the insulation in electrically heated homes (90% in favour)

  * offering grants to business and industrial customers to purchase or switch to more energy efficient machines, motors, or heating equipment or upgrade insulation in buildings (88% in favour)

  * B.C. Hydro could increase its advertising or do more to provide information to consumers about ways they could use less electricity or use electricity more efficiently (89% in favour)

  * People are highly skeptical of the argument that if rates decrease this will cause people to waste electricity and so make it necessary for B.C.Hydro to build new generating stations faster than they would otherwise nave to. The idea that increasing rates is essential to encourage conservation will receive little public support because of the widespread belief that excess generating capacity already exists in the system and the strong public desire for lower rates.

B.C. Hydro's Role As It Relates To Economic Development

- Consistent with findings of a year ago, B.C. Hydro is seen as having a broader mandate than simply being a supplier of electricity. It is seen as having a role to play in supporting and promoting the development of B.C.'s economy. This is reflected in the following data:

  * most British Columbians (65%) support B.C. Hydro offering special incentives or discounts on electrical power rates or equipment to try to attract industry to the province or encourage industry to expand

  * a small majority (53%) approve of offering guaranteed long term rates to companies as an incentive to attract industry to the province.

B.C. Hydro And The Environment

- Respondents were given a list of eight factors and asked to rank them according to how important they feel each is in determining how serious a particular environmental issue or problem is. The priority ranking which results is the following:

  1. The extent to which public health is endangered
  2. The extent to which air and water quality is affected
  3. The extent to which wildlife is interfered with
  4. The extent to which agricultural land is interfered with
  5. The extent to which the natural beauty of the landscape is interfered with
  6. The extent to which recreational land is interfered with
  7. The extent to which private property is affected.

- These findings indicate that public health and concern about air and water quality are the dominant factors which B.C. residents feel should be taken into consideration in making any determination about the relative seriousness and importance of any given environmental issue or problem. Impact on agricultural lands and wildlife are other key criteria that people feel should be used in assessing the seriousness of environmental problems. More aesthetic considerations, such as the impact on recreational areas, the beauty of the landscape, or private property are considered less important factors.

- British Columbians are slightly more satisfied than dissatisfied with B.C. Hydro's actions to protect the environment. Moreover, compared to a year ago, satisfaction has increased (44% in February 1988 vs. 51% in January 1989).

- Despite this improvement, data throughout the study indicates that concern about the impact that B.C. Hydro operations have on the environment remains a super sensitive issue and concern for British Columbians. This is partly because the vast majority (77%) of British Columbians expect B.C. Hydro to adhere to a higher set of environmental standards than other private companies and play a leadership role when it comes to conduct on environmental matters.

- When respondents are asked in an unaided, open ended question what kind of environmental problems or issues they are concerned about with respect to B.C. Hydro's activities, the most frequently cited concerns, in order of priority are:

    1) problems related to Hydro dams, including flooding of agricultural land, destroying wildlife, water levels in lakes above dams, and water pollution

    2) toxic chemical problems including the disposal and transportation of PCB's from transformers, the use of herbicides to control vegetation along power line rights-of-way

    3) acid rain or air pollution problems

    4) the environmental and agricultural damage caused by the construction of power lines and the health effects of transmission lines.

- It is noteworthy that while concern about the environmental impact of dams is a high top of mind concern, in aided response, problems associated with the use, handling and disposal of toxic chemicals are rated as more serious environmental problems and concern about the environmental impact of dams recedes.

- This suggests that the use, handling and disposal of toxic chemicals may be seen as a bigger problem in the longer term or a problem that is more difficult to manage or control, while the environmental impact of dam construction and operation may be seen as a more localized or isolated problem that tends to come into play as an issue only when new development is being contemplated. This further suggests that the use, handling and disposal of toxic chemicals has the potential to become a much more serious issue of public concern associated with B.C. Hydro as the public profile of this issue increases.

- Overall, these findings suggest that both the toxic chemical, toxic waste issue and public concern about the environmental impact of dams need to be given top priority attention.

- With respect to P.C.B.s, just under two thirds (63%) of British Columbians express at least some confidence in B.C. Hydro's ability to safely manage the handling of PCB's. That is, there is a fair amount of confidence in B.C. Hydro in this regard, but not a strong vote of confidence.

- Moreover, most British Columbians (57%) agree that there is not enough public input in decisions regarding where and how wastes from B.C. Hydro facilities should be handled.

- When asked if they would be willing to pay slightly higher electricity rates in order to pay for the cost of new measures to reduce pollution in Hydro's operations, three in five British Columbians (59%) say "yes". This proportion is up significantly compared to one year ago when two in five (42%) said "yes".

- These findings are indicative of the growing concern about the quality of the environment in B.C.

- The sources of information in which the people of B.C. place the greatest trust and confidence for information about how B.C. Hydro's activities and operations affect the environment are scientists and environmental groups, two groups which are perceived to be unrelated to B.C. Hydro, and to the media.

- The sources which are trusted by B.C. residents to a secondary degree are outlined below, in the order in which they are trusted:

    * B.C. Hydro
    * community leaders
    * T.V. reports
    * newspaper reports
    * friends
    * federal government
    * provincial government.

- Although B.C. Hydro receives only a moderate level of public trust and confidence regarding what it has to say about the environment, it is interesting to note that it is actually more trusted than the media. Overall, it has fairly good credibility relative to other groups.

- However, only one third of British Columbians (33%) say that they are aware that B.C. Hydro provides information to the public about environmental issues concerning B.C. Hydro. This suggests that there is clearly room for B.C. Hydro to improve its performance in getting information out to the public on environmental issues.

Advertising And Information Programs

- As was the case a year ago, two thirds (65%) of British Columbians are aware that B.C. Hydro provides information about energy to the public.

- Among those who know about the information programs, 77% say they are very or somewhat satisfied with these programs. This is comparable to the response obtained a year ago.

- What these findings suggest is that the information programs themselves are very well received. What is needed is a promotional campaign to publicize the existence of the programs more.

- The areas about which people want to learn about the most from B.C. Hydro in its information programs parallel their major concerns about B.C. Hydro. In order of priority, they are:

    * rates (51%)
    * environmental protection policies/ programs (44%)
    * future plans/ forecasting (38%)
    * conservation of electricity/ conservation tips (34%)
    * energy efficiency (33%).

- There continues to be relatively little interest in B.C. Hydro using newspapers or television ads to communicate with the public in comparison with an insert with an electricity bill or a piece of direct mail.

# DETAILED FINDINGS

# SECTION ONE
# THE ENERGY OUTLOOK

## EXPECTED ELECTRICITY REQUIREMENTS FOR BRITISH COLUMBIA

- Future expectations are that British Columbia's electricity requirements will increase significantly in the next five years. Four in five (84%) expect that B.C. will have a much greater or somewhat greater need for electricity in the next five years. This is up sharply from one year ago when three in four (74%) expressed this opinion.

- Hydro consumers living in the Northern Interior expect a higher overall increase in demand for electricity (94% expect a much greater or somewhat greater need for electricity in the next five years) than those living in other regions.

| Expected Electricity Requirements For B.C. In The Next Five Years | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Much greater | 28 | 41 | 41 | 44 | 43 | 34 |
| Somewhat greater | 46 | 43 | 42 | 40 | 51 | 46 |
| About the same | 20 | 11 | 10 | 14 | 6 | 13 |
| Somewhat less | 4 | 3 | 3 | 1 | - | 5 |
| Much less | 1 | 1 | 1 | 2 | - | - |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## EXPECTED FUTURE HOUSEHOLD ELECTRICITY REQUIREMENTS

- As in 1988, the data indicates that a large portion of British Columbians (48%) expect that their personal electricity requirements for the next five years will be about the same as they are at present. However, on balance, people are clearly more likely to feel that their electricity needs will increase (42%) rather than decrease (10%). The proportion expecting their household use to increase is up slightly from a year ago (42% vs 36%).

| Expected Future Electricity Requirements For Your Household In The Next Five Years | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Much greater | 9 | 11 | 14 | 6 | 6 | 12 |
| Somewhat greater | 27 | 31 | 34 | 26 | 30 | 26 |
| About the same | 50 | 48 | 43 | 58 | 52 | 49 |
| Somewhat less | 10 | 7 | 4 | 10 | 10 | 8 |
| Much less | 2 | 3 | 3 | 1 | 2 | 5 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Respondents with a very or somewhat unfavourable image of B.C. Hydro are less likely to anticipate that their consumption of electricity will be greater in the next five years (31%) than those with a very or somewhat favourable image (43%).

- Those most likely to anticipate their consumption of electricity will be greater in five years are :

  * those under 35 (54%)
  * renters (51%).

## INCREASING SUPPLY OF ENERGY VERSUS DECREASING DEMAND

- British Columbians were asked if government and industry should primarily focus on increasing the supply of energy by expanding existing supply sources, or primarily focus on decreasing demand or consumption so that existing energy sources will meet demand long into the future.

- Overall, people feel more emphasis should be placed on increasing the supply of energy. Two in five respondents (42%) indicate this should be the primary focus as opposed to 33% who feel decreasing demand should be the primary focus.

- Regionally, residents from the Southern Interior show more support for increasing supply than the rest of the province.

| Government And Industry Should ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Primarily focus on increasing supply | 42 | 35 | 42 | 44 | 65 |
| Primarily focus on decreasing demand | 33 | 36 | 31 | 26 | 27 |
| Both equally | 25 | 28 | 25 | 30 | 8 |
| No opinion | 1 | 1 | 1 | 1 | - |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Low income earners (54%) are more likely to support increasing supply than higher income earners.

- Those most likely to support decreasing demand include:

  * respondents with an unfavourable image of B.C Hydro (46%)
  * environmental activists (43%).

# SECTION TWO

# CONSUMER ATTITUDES TOWARD ELECTRICITY VERSUS OTHER FUELS

## COMPARATIVE EVALUATION OF FUEL TYPES

- Respondents were asked to indicate which of the three different energy sources -- oil, natural gas, and electricity -- is best described by a series of statements.

- Results indicate that British Columbians continue to have a positive impression of electricity as a source of energy both for the present and for the future. Electricity stands out as the energy source which:

  * is most abundant
  * can provide greatest security for British Columbia's energy needs and well being in the future
  * has the biggest role to play in the future industrial and economic development of the province.

- However, generally speaking, fewer people are likely to hold these views than they were a year ago.

- Despite this, electricity is still considered a cornerstone of British Columbia's resource wealth and future economic and industrial development and success.

- Natural gas, on the other hand, is perceived as having the edge over electricity when it comes to the key issue of pricing. Natural gas stands out ahead of electricity as the fuel that:

  * is the least expensive
  * is likely to be the least expensive in ten years.

- Moreover, trend data indicates that natural gas is gaining ground against electricity as the energy source that :

  * B.C. should be relying more on in future
  * has the biggest role to play in the future industrial and economic development of the province
  * is the power source that can provide greatest security for B.C.'s energy needs in future.

- Consumers clearly do not perceive oil as an energy source on which B.C should depend in the future. Specifically, oil is perceived to be the energy source which:

  * is in shortest supply
  * is likely to record the largest price increase in the next ten years
  * is likely to be the most expensive in ten years.

| Which Of The Three Energy Sources ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **Is The Energy Or Power Source In Shortest Supply** | | | | | | |
| Electricity | 7 | 7 | 7 | 8 | 9 | 5 |
| Oil | 73 | 69 | 69 | 66 | 74 | 69 |
| Natural Gas | 9 | 10 | 9 | 17 | 4 | 14 |
| All the same | 5 | 5 | 6 | 5 | 8 | 1 |
| **Is The Most Abundant Energy Or Power Source** | | | | | | |
| Electricity | 60 | 59 | 54 | 72 | 57 | 59 |
| Oil | 3 | 3 | 2 | 6 | 3 | 4 |
| Natural Gas | 31 | 32 | 36 | 20 | 33 | 31 |
| All the same | 3 | 1 | 1 | 2 | 2 | 1 |
| **Is The Energy Or Power Source We Should Be Relying More On** | | | | | | |
| Electricity | 51 | 43 | 38 | 52 | 39 | 51 |
| Oil | 2 | 3 | 3 | 3 | 3 | 1 |
| Natural Gas | 38 | 45 | 49 | 37 | 46 | 42 |
| All the same | 4 | 2 | 2 | 3 | 4 | 1 |
| **Is The Power Source Which Can Provide Greatest Security For B.C.'s Energy Needs And Well-Being In Future** | | | | | | |
| Electricity | 60 | 52 | 47 | 56 | 52 | 65 |
| Oil | 3 | 1 | 2 | 1 | 2 | 1 |
| Natural Gas | 28 | 37 | 40 | 36 | 33 | 30 |
| All the same | 3 | 2 | 2 | 2 | 2 | 1 |
| **Has The Biggest Role To Play In The Future Industrial And Economic Development Of The Province** | | | | | | |
| Electricity | 55 | 47 | 43 | 49 | 55 | 55 |
| Oil | 6 | 3 | 4 | 3 | 4 | 1 |
| Natural Gas | 30 | 40 | 42 | 41 | 33 | 37 |
| All the same | 4 | 2 | 2 | 2 | 5 | 2 |

| Which Of The Three Energy Sources ... (Cont'd) | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **Is The Least Expensive** | | | | | | |
| Electricity | 21 | 21 | 22 | 23 | 7 | 22 |
| Oil | 3 | 3 | 2 | 8 | 1 | 1 |
| Natural Gas | 68 | 65 | 64 | 58 | 88 | 68 |
| All the same | 2 | 2 | 3 | 2 | - | 1 |
| **Is Likely To Record The Largest Price Increase In The Next Ten Years** | | | | | | |
| Electricity | 25 | 22 | 23 | 18 | 16 | 27 |
| Oil | 45 | 51 | 46 | 66 | 55 | 46 |
| Natural Gas | 24 | 19 | 21 | 12 | 21 | 20 |
| All the same | 1 | 2 | 2 | 2 | - | - |
| **Is Likely To Be The Most Expensive In Ten Years** | | | | | | |
| Electricity | 29 | 21 | 21 | 16 | 26 | 26 |
| Oil | 54 | 61 | 58 | 72 | 62 | 61 |
| Natural Gas | 11 | 10 | 12 | 7 | 5 | 11 |
| All the same | 2 | 1 | 1 | 2 | - | - |
| **Is Likely To Be The Least Expensive In Ten Years** | | | | | | |
| Electricity | 34 | 28 | 29 | 29 | 16 | 28 |
| Oil | 5 | 9 | 11 | 5 | 6 | 6 |
| Natural Gas | 50 | 52 | 47 | 58 | 66 | 59 |
| All the same | 2 | 2 | 2 | 2 | - | 1 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## RATE OF INCREASE OF COST OF ELECTRICITY RELATIVE TO NATURAL GAS

- Overall, the concensus of opinion (44%) remains that the price of electricity will increase at about the same rate as the price of natural gas in the next five years or so. However, more British Columbians feel that price of electricity will increase faster (35%) rather than slower (17%) than the price of natural gas.

- Relative to the overall rate of inflation, electricity is still expected by the majority of people (55%) to increase at about the same rate. A sizeable minority, however, (27%), feel that electricity will increase faster than the rate of inflation.

| In Next Five Years, Do You Expect The Cost Of Electricity To Increase Faster, At The Same Rate Or Slower Than ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **The cost of natural gas** | | | | | | |
| Faster | 32 | 35 | 35 | 34 | 37 | 35 |
| At the same rate | 42 | 44 | 44 | 42 | 40 | 46 |
| Slower | 23 | 17 | 16 | 18 | 19 | 17 |
| **The overall rate of inflation** | | | | | | |
| Faster | 26 | 27 | 27 | 25 | 25 | 30 |
| At the same rate | 53 | 55 | 54 | 59 | 49 | 56 |
| Slower | 19 | 13 | 14 | 13 | 14 | 12 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- The perception that the cost of electricity will increase faster than the cost of natural gas is stronger among respondents with an unfavourable image of B.C. Hydro (47%) and respondents under 35 (44%).

- Respondents with an unfavourable image of Hydro (37%) are also more likely to believe that the cost of electricity will increase faster than the overall rate of inflation.

# SECTION THREE

# ATTITUDES TOWARD AND INVOLVEMENT IN CONSERVATION

## ELECTRICITY CONSERVATION ORIENTATION

- In order to determine electricity conservation orientation, respondents were asked to think about their lifestyle and the way they use electricity. Then they were asked to rate themselves on a one to ten scale, where a rating of one means they do not pay much attention to the amount of electricity they use, and a rating of ten means they pay very close attention to trying to limit the amount of electricity they use.

- Given this scale, the average electricity conservation orientation of British Columbia residential consumers is at a level or 6.6, comparable to the 6.3 conservation rating reported a year ago. That is, the electricity conservation orientation of the population has not changed very much over the past year.

- Based on their response in this question, respondents were segmented into three groups as follows:

  * weak conservers (rated themselves 1, 2, 3, or 4 on the conservation scale)
  * moderate conservers (rated themselves 5 to 7 on the conservation scale)
  * strong conservers (rated themselves 8 to 10 on the conservation scale)

- Based on this definition, weak conservers represent 17% of the population, and moderate and strong conservers each represent 41%.

| % Rating ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| 1/2/3/4 | 23 | 17 | 17 | 15 | 17 | 20 |
| 5/6/7 | 38 | 41 | 41 | 41 | 47 | 38 |
| 8/9/10 | 39 | 41 | 41 | 44 | 34 | 42 |
| **Average conservation rating (Maximum 10.0)** | **6.3** | **6.6** | **6.7** | **6.7** | **6.3** | **6.4** |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those who are most electricity conservation oriented include:

  * working women (Average rating = 6.9)
  * people who have an unfavourable impression of B.C. Hydro (6.8)
  * people who oppose exporting electricity (6.8).

- Those who are least electricity conservation oriented include:

  * residents of the Northern Interior (6.3)
  * residents of the Southern Interior (6.4)
  * men (6.4).

## CHANGES IN ELECTRICITY CONSERVATION ORIENTATION OVER TIME

- As in 1988, approximately one in two (52%) respondents indicate that lately, they have been paying more attention to the amount of electricity conservation they practice.

- The proportion who say they are paying less attention to electricity conservation lately continues to be very small.

| Amount Of Attention To Conserving Electricity | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Paying more attention to conserving electricity | 47 | 52 | 57 | 44 | 47 | 51 |
| Paying less attention | 4 | 5 | 6 | 5 | 4 | 3 |
| Paying no more or less attention | 49 | 42 | 38 | 52 | 49 | 45 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those who are more likely to say they are paying more attention to electricity conservation lately include the following:

  * renters (64%)
  * British Columbians with an unfavourable image of B.C. Hydro (58%)
  * residents of Vancouver (57%).

- Those who are more likely to say they are paying less attention to electricity conservation lately include the following:

  * residents of Vancouver Island (52%) and the Northern Interior (49%)
  * homeowners (50%).

## WHAT DOES THE TERM "ENERGY CONSERVATION" MEAN TO CONSUMERS

- Respondents were asked whether the term "energy conservation" primarily means doing without, or using less energy but doing so in a way that causes no inconvenience. Most (73%) say they feel the term means doing with less but without inconvenience. That is, the term does not necessarily imply harsh or sever cutbacks or penalties in most people's minds. Nonetheless, a significant minority (27%) do feel the term implies some type of inconvenience or doing without . For these people the term is clearly negative to the extent that it implies some measure of hardship or sacrifice.

| The Term 'Energy Conservation' Primarily Means ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Doing without | 16 | 19 | 11 | 10 | 15 |
| Using less energy but without inconvenience | 73 | 66 | 78 | 84 | 82 |
| Both | 11 | 14 | 11 | 5 | 3 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to think that energy conservation is not an inconvenience include:
  - residents of the Northern Interior (84%) and Southern Interior (82%)
  - supply side advocates (80%)
  - homeowners (79%).

- Those most likely to think that energy conservation involves some inconvenience include:
  - renters (35%)
  - people under 35 years of age (34%)
  - residents of Vancouver (33%).

## EFFECT OF ENERGY CONSERVATION ON LIFESTYLE

- There is a perception or tendency to believe that energy conservation is something that affects people's lifestyle or quality of life in a positive or neutral sort of way. While many people like to think of energy conservation as having a positive impact on their lifestyle, only half of those interviewed (50%) feel this way. Moreover, there are also negative associations ascribed to this term as noted previously.

| Think Of Energy Conservation As Something That Affects Your Lifestyle Or Quality Of Life In ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| A positive way | 50 | 52 | 49 | 44 | 48 |
| A negative way | 8 | 10 | 7 | 8 | 6 |
| Neither a positive nor a negative way | 41 | 38 | 45 | 48 | 45 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to feel that electricity conservation affects lifestyle in a positive way include:

  * strong conservers (60%)
  * middle income earners (57%)
  * environmental activists (56%).

## ALTERNATIVE FUELS AND ENERGY CONSERVATION

- As the following table indicates, when asked whether or not switching from an electric to a natural gas hot water heater constitutes conserving energy, conserving electricity, or neither, opinion is split almost evenly with about a third of the sample indicating each. Over one third indicate that they do not think of this kind of change as a conservation issue at all.

- This kind of substitution is not clearly perceived in consumers' minds as a means of saving or conserving energy in a generic sense.

| In Switching From An Electric To A Gas Hot Water Heater Would You ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Be conserving energy | 33 | 38 | 20 | 30 | 31 |
| Be conserving electricity | 31 | 30 | 28 | 34 | 38 |
| Not think of this change as a conservation issue | 36 | 32 | 50 | 35 | 31 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to think of this switch as conserving energy include:

  * those with an unfavourable image of B.C. Hydro (39%)
  * those under 35 (39%)
  * residents of Vancouver (38%)
  * renters (38%)
  * demand side advocates (38%)
  * those that earn less than $20,000 annually (37%).

- Those most likely to think of this switch as conserving electricity include:

  * renters (39%)
  * residents of the Southern Interior (38%)
  * working females (37%).

- Those most likely to think that this change is not a conservation issue include:

  * residents of Vancouver Island (50%)
  * weak conservers of energy (44%)
  * those opposed to public sector involvement in Hydro (41%)
  * those 35 years of age or older (41%)
  * homeowners (45%)
  * those with some post-secondary education (41%).

## CONSERVATION BENEFITS

- B.C residents are more inclined to think of conservation measures as a means to save money (63%) rather than a conscious effort on their part to not waste a precious energy resource (17%). That is, it is the more direct, tangible, monetary benefit of conservation that is most relevant to the majority of people when they think of the benefits of conservation measures.

| When You Reduce The Amount Of Energy You Use By Turning Off Lights Or Turning Down The Thermostat, Do You Think Of This As ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Primarily saving money | 63 | 59 | 62 | 74 | 72 |
| Primarily not wasting a precious energy resource | 17 | 19 | 16 | 5 | 16 |
| Both equally | 20 | 22 | 22 | 21 | 12 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to think of conservation as a way of primarily saving money include:

  * residents of the Northern Interior (74%) and Southern Interior (72%)
  * middle income earners (72%)
  * those with an unfavourable image of B.C. Hydro (71%).

## HOW EFFECTIVE CAN INDIVIDUAL CONSERVATION MEASURES BE

- When asked how effective the efforts of an individual can be in conserving electricity in order to help hold down electricity rate increases, the majority of respondents (87%) feel that it can be at least a little effective. Furthermore, six in ten (60%) express the opinion that it can be at least very or moderately effective.

| Effectiveness Of Individual Conservation Action In Helping To Hold Down Electricity Rate Increases | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very effective | 18 | 20 | 17 | 15 | 13 |
| Moderately effective | 42 | 47 | 31 | 37 | 43 |
| A little effective | 27 | 23 | 36 | 25 | 30 |
| Not effective at all | 13 | 10 | 17 | 23 | 13 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to feel that individual effort is at least a little effective in helping to hold down electricity rate increases include:

  * renters (94%)
  * those under 35 years of age (92%).

- Those most likely to feel that individual effort is not at all effective in helping to hold down electricity rate increases include:

  * those with an unfavourable image of B.C. Hydro (24%)
  * residents of the Norther Interior (23%)
  * weak conservers (19%)
  * homeowners (19%).

## HOW MUCH DO PEOPLE FEEL THEY COULD CUT BACK THEIR ELECTRICITY CONSUMPTION

### How Much Could People Cut Back?

- British Columbians were asked how much they think they could cut back in their electricity usage by taking steps to upgrade insulation or replace existing major appliances or electrical heating systems with new, more energy efficient ones or by watching the amount of electricity they use more closely.

- As was seen a year ago, the average amount of electricity usage that people feel they could cut back on by using these techniques remains at approximately the same level (11%).

| | Average Estimated Per Cent Of Possible Cut Back (Maximum 100%) | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Average Estimated Cut Back Possible On Electricity Consumption | 12 | 11 | 12 | 9 | 10 | 9 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- The estimated cut back possible varies little across the various subgroups.

## How Much Would People Cut Back With A Clear Price Incentive?

- Respondents were also asked how much they think they would cut back on their electricity consumption if there was a clear price incentive to do so. The average estimated amount that people say they would cut back is 11%. In other words, the amount that people say that would cut back on electricity consumption given a clear price incentive to do so is the same amount that people think is possible for them to cut back.

- These findings remain virtually unchanged from February, 1988.

| | Average Estimated Per Cent Cut Back (Maximum 100%) | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Average Estimated Cut Back On Electricity Consumption If There Was A Clear Price Incentive | 12 | 11 | 12 | 10 | 10 | 10 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## WHAT WOULD BE A GOOD INCENTIVE FOR CUTTING BACK?

- Respondents were asked what they feel would be a good incentive, or, how much per month saving on their electricity bill would be needed to encourage them to cut back on their electricity consumption or take steps to make their home more energy efficient.

- The average monthly savings required (14%) is down from one year ago (20%).

| | Average Per Cent Of Monthly Savings (Maximum 100%) | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Average monthly savings required to encourage a cut back in electricity consumption | 20 | 14 | 14 | 13 | 16 | 14 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## RESPONSE TO HYDRO OFFERING FINANCIAL INCENTIVES TO ENCOURAGE CONSERVATION OR MORE EFFICIENT USE OF ELECTRICITY

- There is very strong and very widespread support (81%) for B.C. Hydro offering a system of financial incentives to residential consumers and industry encouraging the conservation of electricity and more efficient use of electricity.

- Support for B.C. Hydro offering a system of financial incentives to residential consumers and industry encouraging the conservation of electricity and more efficient use of electricity remains high (87%), even given the understanding that all consumers may not qualify for the financial incentives that are offered.

| | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **Should A System Of Financial Incentives Be Offered By B.C. Hydro To Residential Customers And Industry For Conserving Or Using Electricity More Efficiently?** | | | | | |
| Yes | 81 | 76 | 84 | 85 | 90 |
| No | 10 | 11 | 12 | 8 | 6 |
| No opinion | 10 | 14 | 4 | 7 | 4 |
| **Would You Favour Offering A System Of Financial Incentives To Encourage More Efficient Use Of Electricity And Keep Rates Down If You May Not Qualify For These Incentives Yourself?** | | | | | |
| Favour | 87 | 85 | 87 | 92 | 93 |
| Oppose | 12 | 14 | 12 | 8 | 7 |
| No opinion | 1 | 1 | 1 | - | - |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Support for these financial incentives is especially high among:

  * residents of the Southern Interior (90%)
  * respondents with personal incomes over $35,000 annually (88%)
  * union households (87%).

## WHO SHOULD FINANCIAL INCENTIVES BE OFFERED TO?

### Residential Versus Commercial Consumers

- The vast majority of B.C residents (84%) feel that, if financial incentives are offered encouraging conservation or the more efficient use of electricity, they should be offered to both private individuals and business.

- Among those who do not feel incentives should be offered to both individuals and industry, most feel that these incentives should be offered to individuals only.

| Should Incentives For Conservation Or More Efficient Use Of Electricity Be Offered To ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Business and industry only | 3 | 4 | - | 2 | 4 |
| To private individuals or residential consumers only | 13 | 15 | 12 | 10 | 8 |
| To both business or industry and private individuals | 84 | 81 | 88 | 87 | 88 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

**Family Income**

- **As the following table shows, there is an overwhelming view that financial incentives for encouraging conservation and the more efficient use of electricity should be offered to all consumers and not only to lower income families.**

| Incentives For Conservation Or More Efficient Use Of Electricity Should Be Offered ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Only to lower income families | 18 | 19 | 19 | 10 | 16 |
| To all consumers | 82 | 80 | 80 | 90 | 84 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- **Those with an unfavourable image of B.C. Hydro (27%) tend to be more likely to feel that incentives for conservation should be offered only to lower income families.**

- **Residents of the Northern Interior (90%) are more likely to feel that incentives should be offered to all consumers.**

## RESPONSE TO SPECIFIC INCENTIVES TO REDUCE CONSUMPTION

- Respondents were given a list of four different types of financial incentives that could be offered to residential consumers, businesses and industry to encourage them to use electricity more effectively and thereby help keep rates down.

- As the following data indicates, there is widespread support for Hydro offering incentives to encourage people to use less electricity.

- Only between 8% and 13% of respondents oppose any of the policies presented.

- The two major conclusions to be drawn from this data are:

  * there is good support for incentives of all kinds

  * the minority of people who oppose incentives realize that incentives are never free - they are paid for through increased rates or taxes.

| Support For Hydro Doing Each Of The Following | Index of Support (*Max. = 100*) | % of British Columbians | | | |
|---|---|---|---|---|---|
| | | LEVEL OF SUPPORT | | | |
| | | Strongly support | Moderately support | Moderately oppose | Strongly oppose |
| Grants could be given to residential customers who improve the insulation in electrically heated homes | 80 | 52 | 38 | 3 | 5 |
| Grants could be given to business and industrial customers to purchase or switch to more energy efficient machines, motors, or heating equipment or upgrade insulation in buildings | 77 | 45 | 43 | 5 | 5 |
| B.C. Hydro could increase its advertising or do more to provide information to consumers about ways they could use less electricity or use electricity more efficiently | 76 | 41 | 48 | 6 | 4 |
| Grants could be given to encourage the purchase of electricity saving household appliances | 72 | 37 | 50 | 6 | 7 |
| *Base: (595)* | | | | | |

- The minority who oppose the policies or incentives examined do so primarily for the following reasons:

  - The cost of incentives will have to be paid for either through increased taxes or higher electricity rates. This was the overwhelming reason for opposing incentives.

  - There is no need to replace appliances until they are worn out and that any possible savings do not match the cost of replacing appliances.

  - If insulation grants are to be offered they should be offered to all houses regardless of the type of heating the home uses.

  - Government gives enough tax breaks to business. They should focus less on helping business and more on helping residential customers.

  - There is also a feeling that business and industry can well afford to employ energy saving measures without assistance.

  - Advertising is seen by a few opponents as a waste of money since bill inserts, for example, are put into the garbage without being read.

## AFFECT OF PRICE INCREASES ON CONSUMPTION

- British Columbians were asked how likely they would be to reduce their electricity consumption given price or rate increases ranging from 1% to 20%.

- Compared to one year ago, respondents are more likely to state that their consumption would decrease, at least a little, no matter what the increase.

- However, as was the case last year, the 1989 data indicates that a rate increase below 5% has only a moderate affect on consumption. Consumption begins to be significantly affected or curbed, however, when the rate increase begins to exceed 5%. That is, 5% seems to be a threshold level.

| A Decrease In The Amount Of Electricity Used Would Be ... | % of British Columbians | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | If Electricity Rates Rise By ... | | | | | | | |
| | 1% | | 5% | | 10% | | 20% | |
| | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 |
| Very likely | 6 | 7 | 10 | 12 | 26 | 29 | 48 | 53 |
| Somewhat likely | 5 | 9 | 10 | 17 | 22 | 28 | 15 | 16 |
| A little likely | 14 | 16 | 26 | 27 | 17 | 17 | 9 | 9 |
| Not likely at all | 74 | 64 | 53 | 40 | 34 | 22 | 28 | 18 |
| Index (*maximum = 100*) | 14 | 19 | 25 | 33 | 47 | 56 | 61 | 69 |
| *Base:* | *702* | *595* | *702* | *595* | *702* | *595* | *702* | *595* |

## AFFECT OF PRICE DECREASES ON CONSUMPTION

- British Columbians were also asked how likely they would be to increase their electricity consumption given price or rate decreases ranging from 1% to 20%.

- Response again indicates that 5% is a threshold level in terms of affecting any degree of significant change in consumer behaviour. Rate reductions of less than 5% result in little change in consumption behaviour. However, consumption begins to be affected when rate reductions exceed 5% as a significant proportion of consumers (31%) say they expect they would be very or somewhat likely to increase their consumption of electricity if rates declined by 10%.

| An Increase In The Amount Of Electricity Used Would Be ... | % of British Columbians | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | If Electricity Rates Drop By ... | | | | | | | |
| | 1% | | 5% | | 10% | | 20% | |
| | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 | Feb. 1988 | Jan. 1989 |
| Very likely | 2 | 5 | 2 | 4 | 10 | 14 | 25 | 26 |
| Somewhat likely | 3 | 5 | 7 | 11 | 18 | 17 | 14 | 15 |
| A little likely | 8 | 11 | 19 | 22 | 19 | 21 | 14 | 15 |
| Not likely at all | 85 | 75 | 70 | 60 | 52 | 44 | 46 | 40 |
| Index (*maximum = 100*) | 7 | 13 | 14 | 19 | 28 | 34 | 39 | 43 |
| *Base:* | 702 | 595 | 702 | 595 | 702 | 595 | 702 | 595 |

# SECTION FOUR
# B.C. HYDRO'S IMAGE

## OVERALL IMPRESSION OF B.C. HYDRO

- More than four in five respondents (85%) have a very favourable or somewhat favourable impression of B.C Hydro. Moreover, only 2% have a very unfavourable impression with the remaining 10% saying that their overall impression of B.C. Hydro is somewhat unfavourable. Compared with one year ago, this constitutes a significant improvement in the overall impression rating of B.C. Hydro among British Columbians.

| Impression Of B.C. Hydro | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very favourable | 10 | 23 | 21 | 24 | 21 | 33 |
| Somewhat favourable | 56 | 62 | 64 | 57 | 69 | 52 |
| Somewhat unfavourable | 27 | 10 | 9 | 14 | 9 | 11 |
| Very unfavourable | 6 | 2 | 2 | 3 | - | 2 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Among the various segments examined, those most likely to have a favourable impression of B.C. Hydro include:

  * those making in excess of $35,000 annually (90% say very/somewhat favourable)
  * supply side advocates (89%)
  * residents of the Northern Interior (89%)
  * weak conservationists (88%).

- Those most likely to have an unfavourable impression of B.C. Hydro include:

  * residents of Vancouver Island (17%)
  * demand side advocates (17%)
  * environmental activists (16%).

## THE BEST THING ABOUT B.C. HYDRO

- When respondents were asked what one thing they most like, or are most favourably impressed with about B.C. Hydro, good quality service, both in terms of its reliability and its quick repair, are what people most like about B.C. Hydro.

| One Thing Liked Most About B.C. Hydro (Selected) | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Quick/ fast in emergencies/ get out day or night to fix power outages/ problems/ outages fixed quickly | 21 | 17 | 39 | 25 | 11 |
| Good/ satisfactory service (*general mention*) | 17 | 20 | 12 | 11 | 17 |
| Reliable/ few power interruptions/ dependable service | 14 | 15 | 12 | 11 | 15 |
| Helpful on phone/ courteous/ customer service/ friendly | 5 | 5 | 4 | 11 | 5 |
| Providing/ supplying electricity/ good thing to have/ wouldn't want to be without it/ necessity/ B.C. Hydro is needed | 4 | 5 | 3 | 3 | - |
| Well run organization | 3 | 2 | 1 | 4 | 8 |
| Monthly payment plans | 3 | 2 | 2 | 6 | 3 |
| Inexpensive/ reasonable rates/ not many increases in rates/ keeping rates down/ reasonable | 3 | 4 | 3 | 4 | 2 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- No other response was mentioned by more than 2% of the population.

## THE WORST THING ABOUT B.C. HYDRO

- When asked what one thing they most dislike, or are most dissatisfied with about B.C. Hydro, respondents give answers that are more diverse and less focussed than the answers they give for things most liked about B.C. Hydro.

- Rates stand out as the single greatest issue of concern about B.C. Hydro among British Columbians.

- It is important to note that one in five (21%) say that there is nothing that they dislike about B.C. Hydro.

| One Thing Disliked Most About B.C. Hydro (Selected) | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Rates are very high/ rates are too high/ cost is high/ they are raising their rates/ too expensive | 31 | 30 | 28 | 35 | 37 |
| The way they bill/ handle billing/ although done through Vancouver, still get bill when it's due/ a few days grace on the bill would be appreciated/ no flexibility with payments | 4 | 5 | 5 | 3 | 1 |
| Rude manner on the phones/ treat customers poorly/ don't handle complaints well/ poor attitude in service calls | 4 | 4 | 5 | 2 | 2 |
| Nothing | 21 | 21 | 21 | 13 | 27 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- No other issues were mentioned by more than 2% of British Columbians.

## CHANGES IN IMPRESSION OF B.C. HYDRO OVER TIME

- The following table shows that the vast majority of respondents (81%) continue to indicate that the image they have of B.C. Hydro has remained the same over the past few years. The remaining portion of the sample are split evenly between having changed their image for the better and changing it for the worse. Directionally, this represents an improvement over 1988, as fewer say their impression has changed for the worse and more say it has changed for the better.

| In The Past Few Years, Impression Of B.C. Hydro Has... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Changed for the better | 5 | 8 | 10 | 7 | 8 | 3 |
| Remained the same | 81 | 81 | 76 | 87 | 85 | 91 |
| Changed for the worse | 13 | 9 | 11 | 5 | 6 | 6 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Middle income earners (those making between $20,000 and $35,000 annually) are more likely to say that their image of B.C. Hydro has changed for the better (14%), while those with an unfavourable image of Hydro are more likely to say that their image of B.C Hydro has changed for the worse (28%).

## THE IMAGE OF B.C. HYDRO: A DETAILED PORTRAIT

- Respondents were given twenty-seven different descriptive phrases and asked to indicate on a ten-point scale the extent to which each characteristic accurately describes B.C. Hydro. Results has been tabulated in the form of an Average Impression Rating such that the closer the Average Impression rating is to 10.0, the more descriptive the statement or characteristic is considered to be of B.C. Hydro. The results are shown in the following table.

- The portrait that emerges from this data has changed very little in the past year. The data shows the following results:

  * B.C Hydro is, first and foremost, a company which provides reliable electricity service and, when service breaks down, it is fast to restore power. On the fundamental priority of all customers, namely is there electricity available when they turn on a switch, B.C. Hydro does very well. Average rating on the characteristic of being fast to restore power when an outage occurs is 7.6 and of having very few power outages is 7.0.

  * B.C Hydro is seen as a modern, up to date company in terms of the equipment it uses (7.1) and even as being a world leader in its field (6.0).

  * Overall, B.C. Hydro has a reasonably good relationship with the public at large (6.2). In addition, it gets a reasonable average rating for being customer service oriented (6.4) and for treating the customer in a friendly way whenever he/she telephones B.C. Hydro (7.1).

  * There is a view that B.C Hydro is not entirely open and honest with the public (5.5). This view is especially prevalent among residents of Vancouver Island (4.8) and environmental activists (5.0). However, Hydro's performance in this regard has improved since February, 1988.

  * In addition to this perceived lack of openness, the average rating given for encouraging meaningful public participation in decision making about major projects is also low (5.0), but up slightly from the 1988 level of 4.7. This rating is lowest on Vancouver Island (4.4).

* Rating for environmental issues such as "generates electricity in an environmentally safe way" (6.3) and "has a genuine respect or concern for the environment" (5.9) are mediocre. Environmental activists, in particular, are less likely to feel that B.C. Hydro is concerned about the environment (5.4).

* B.C. Hydro has an acceptable image in terms of being well managed (6.3) and having good employee morale (6.4). Both these areas are up slightly from the 1988 scores of 6.1 in each category. However, it is also seen as being a little fat, receiving an average rating of 5.7 on the characteristic of being a lean, efficiently operated organization and 5.2 average rating on the characteristic of being over staffed. Residents of Vancouver Island are even less likely to feel that the organization is well managed (5.7) or lean and efficient (5.1) than the population at large.

* B.C. Hydro also gets fair marks for doing a good job in terms of forecasting future power needs (6.1).

* People generally, although not overwhelmingly, believe that B.C. Hydro operates in the best interest of B.C. (6.2), up from 5.9 in 1988, and that it is somewhat hampered by government interference (5.8). Residents of Vancouver Island are, however, much less certain that B.C. Hydro operates in the best interest of B.C. (5.9) and is hampered by government intervention (5.2) than are residents in the rest of the province.

* On the issue of rates, B.C. Hydro does less well, having an average rating of only 5.0 on the characteristic of doing a good job of keeping rates down. This, however, represents a slight improvement from the 4.7 rating obtained last year. Rates are a bigger issue, generating lower scores in the Norther Interior (4.4).

* Although rates are a big concern, most people who are concerned about rates admit that B.C. Hydro provides good value for money (6.0).

| Image Rating Of B.C Hydro | Average Impression Rating *(Maximum = 10.0)* | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Provides reliable electricity service | 8.0 | 7.6 | 7.7 | 7.8 | 7.9 | 8.0 |
| Is fast to restore power when outage comes | 8.0 | 7.6 | 7.3 | 8.0 | 7.8 | 7.6 |
| Uses the most up-to-date modern equipment | 7.1 | 7.1 | 7.2 | 6.7 | 7.4 | 7.1 |
| Has very few power outages | 7.1 | 7.0 | 7.1 | 6.7 | 6.6 | 7.1 |
| Treats a customer in a friendly way whenever the customer telephones B.C. Hydro or goes to a B.C. Hydro office | 6.9 | 7.1 | 7.0 | 6.9 | 7.6 | 7.3 |
| Generates electricity in an environmentally safe way | 6.5 | 6.3 | 6.4 | 6.0 | 6.2 | 6.5 |
| Is very customer service oriented | 6.4 | 6.4 | 6.5 | 6.1 | 6.6 | 6.3 |
| Is well managed | 6.1 | 6.3 | 6.6 | 5.7 | 6.2 | 6.1 |
| Has good employee morale | 6.1 | 6.4 | 6.4 | 6.2 | 6.6 | 6.5 |
| Has a good relationship with the public at large | 6.0 | 6.2 | 6.4 | 5.9 | 6.2 | 6.1 |
| Provides good value for money | 6.0 | 6.0 | 6.1 | 6.1 | 5.6 | 5.9 |
| Does a good job of forecasting future power needs | 6.0 | 6.1 | 6.3 | 5.8 | 5.8 | 6.1 |
| Is a world leader in its field | 5.9 | 6.0 | 6.2 | 5.6 | 6.2 | 6.1 |
| Operates in the best interest of B.C. | 5.9 | 6.2 | 6.5 | 5.4 | 6.2 | 6.1 |
| Is hampered by government intervention or interference | 5.8 | 5.8 | 6.1 | 5.2 | 5.7 | 5.5 |
| Has a genuine respect or concern for the environment | 5.7 | 5.9 | 6.0 | 5.6 | 6.1 | 6.0 |
| Is a lean, efficiently operated organization | 5.6 | 5.7 | 5.9 | 5.1 | 5.9 | 5.4 |
| Is over staffed | 5.5 | 5.2 | 5.2 | 4.8 | 5.0 | 5.9 |

| Image Rating Of B.C Hydro (Cont'd) | Average Impression Rating *(Maximum = 10.0)* | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Pays wages which are too high for the kind of work involved | 5.4 | 5.3 | 5.4 | 4.8 | 5.0 | 5.4 |
| Is run by people who always want to build more dams even if the province does not really need them | 5.3 | 5.0 | 5.2 | 4.9 | 4.7 | 4.3 |
| Is too inflexible/ rigid in the way it deals with customers | 5.2 | 4.8 | 5.0 | 4.8 | 4.2 | 4.7 |
| Is open, honest with the public about its operations | 5.1 | 5.5 | 5.7 | 4.8 | 5.5 | 5.7 |
| Has rates that are reasonable | 5.1 | 5.3 | 5.6 | 5.2 | 4.8 | 4.9 |
| Does a good job of keeping electricity rates down | 4.7 | 5.0 | 5.1 | 4.8 | 4.4 | 5.0 |
| Encourage meaningful public participation in decision-making about projects, plans | 4.7 | 5.0 | 5.3 | 4.4 | 4.9 | 5.0 |
| Service is not as good as it used to be | 4.6 | 4.7 | 4.8 | 4.5 | 4.5 | 4.9 |
| Is arrogant in the way it treats its customers | 4.4 | 4.2 | 4.4 | 4.1 | 3.5 | 4.2 |
| *Base:* | *577* | *595* | *275* | *124* | *98* | *98* |

## OVERALL EFFICIENCY

- Consistent with the general view that B.C. Hydro is fairly well managed, 90% of respondents say that B.C. Hydro is very or somewhat efficient. Only 2% think it is very inefficiently managed.

- Compared to one year ago, respondents give B.C. Hydro a significantly higher efficiency rating.

| Efficiency In The Operation Of B.C. Hydro | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very efficient | 18 | 23 | 23 | 21 | 20 | 28 |
| Somewhat efficient | 64 | 67 | 69 | 65 | 70 | 59 |
| Somewhat inefficient | 14 | 8 | 6 | 14 | 8 | 8 |
| Very inefficient | 3 | 2 | 2 | - | 2 | 4 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Respondents with a favourable image of B.C. Hydro (93%) are the most likely to say that B.C. Hydro is a very or somewhat efficient operation.

- On the other hand those most likely to say Hydro is very or somewhat inefficient include:

  * those with an unfavourable image of B.C. Hydro (36%)
  * residents of Vancouver Island (14%).

- Respondents were also asked if B.C. Hydro is doing an excellent, good, fair or poor job in four different management areas. As was the case one year ago, the results given below show that it is in the area of controlling internal, administrative costs that B.C. Hydro is regarded as weakest.

- But even in the other areas tested, the image of B.C. Hydro is not exceptionally strong.

- These results reflect data presented earlier which suggest that B.C. Hydro only has a fair to average image in terms of the way it is managed.

- Trend data, however, indicates a positive improvement in the public's evaluation of B.C. Hydro's efficiency rating over a year ago in each of the categories evaluated.

| Evaluation Of B.C. Hydro's Performance In ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **Keeping a lean, trim office or administrative and engineering staff** | | | | | | |
| Excellent | 5 | 5 | 4 | 4 | 11 | 2 |
| Good | 33 | 40 | 46 | 29 | 36 | 35 |
| Fair | 40 | 40 | 35 | 44 | 46 | 53 |
| Poor | 15 | 10 | 9 | 16 | 4 | 7 |
| Index (*maximum = 100)* | 44 | 47 | 49 | 41 | 52 | 44 |
| **Maintaining a competitive salary structure with private industry; that is, holding the line on salaries the way private industry does** | | | | | | |
| Excellent | 4 | 5 | 5 | 2 | 10 | 3 |
| Good | 37 | 42 | 47 | 35 | 35 | 36 |
| Fair | 39 | 41 | 36 | 49 | 44 | 47 |
| Poor | 15 | 7 | 7 | 8 | 7 | 10 |
| Index (*maximum = 100)* | 44 | 49 | 51 | 45 | 50 | 45 |
| **Controlling site construction on new development or installations** | | | | | | |
| Excellent | 3 | 3 | 3 | 4 | 3 | 3 |
| Good | 34 | 42 | 45 | 35 | 35 | 41 |
| Fair | 43 | 42 | 40 | 44 | 49 | 45 |
| Poor | 15 | 10 | 8 | 14 | 10 | 9 |
| Index (*maximum = 100)* | 42 | 47 | 48 | 43 | 44 | 46 |
| **Controlling internal, administrative costs** | | | | | | |
| Excellent | 2 | 3 | 3 | 2 | 2 | 2 |
| Good | 27 | 31 | 34 | 24 | 25 | 30 |
| Fair | 45 | 49 | 47 | 48 | 58 | 52 |
| Poor | 20 | 12 | 10 | 20 | 8 | 12 |
| Index (*maximum = 100)* | 37 | 42 | 44 | 36 | 41 | 41 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## B.C. HYDRO'S PROFITS AND DEBT

- A significant percentage of respondents (25%) think that B.C. Hydro makes too large a profit. Only 6% say that B.C. Hydro makes almost no profit (5%) or loses money (1%). Twenty percent (20%) say that they have no idea how much profit B.C. Hydro makes.

- These findings are virtually unchanged since February 1988.

| Level Of Profit For B.C. Hydro | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Too large a profit | 29 | 25 | 26 | 26 | 29 | 20 |
| A reasonable profit | 48 | 48 | 49 | 47 | 40 | 51 |
| Almost no profit | 6 | 5 | 4 | 5 | 4 | 10 |
| Loses money | 3 | 1 | 2 | - | 3 | 1 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- As was indicated a year ago, British Columbians still do not think that B.C. Hydro should operate as an non-profit organization. Only 22% think that B.C. Hydro should make almost no profit and only 2% think that it should lose money and be subsidized. The remaining 76% think that B.C. Hydro should make a reasonable profit.

| Profit That B.C. Hydro Should Make In A Normal Year | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Make a reasonable profit | 80 | 76 | 75 | 82 | 72 | 75 |
| Make almost no profit | 19 | 22 | 23 | 15 | 25 | 26 |
| Lose money and be subsidized | 1 | 2 | 2 | 2 | 1 | - |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- The problem then is to define what is "reasonable profit" and to understand why there is a perception that B.C. Hydro is making too much profit when people believe that it should made a reasonable profit.

- In order to answer this question, respondents were given information about the assets owned by B.C. Hydro ($10 billion), its revenues in 1986 ($2 billion) and its profit in 1986 ($25 million), and asked if they thought this profit level was reasonable.

- Two thirds (66%) said that this profit level was very or somewhat reasonable and the remaining third (33%) said that it was very or somewhat unreasonable. In the past year, the proportion that indicate that B.C. Hydro makes a reasonable profit has increased.

| Reasonability Of B.C. Hydro's Profits Last Year | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very reasonable | 18 | 21 | 25 | 21 | 11 | 8 |
| Somewhat reasonable | 44 | 45 | 43 | 48 | 43 | 51 |
| Somewhat unreasonable | 25 | 23 | 23 | 22 | 29 | 23 |
| Very unreasonable | 13 | 10 | 8 | 9 | 14 | 17 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those least likely to feel that B.C. Hydro makes a very or somewhat reasonable profit include:

  * those with an unfavourable impression of B.C. Hydro (49%)
  * residents of the Northern Interior (54%)
  * residents of the Southern Interior (58%)
  * both working women and women in general (59% each).

- Respondents were also given information about B.C Hydro's debt ($7.5 billion against $10 billion in assets) and asked if they were concerned about this .

- The results show that the debt load continues to be an issue that British Columbians are becoming more concerned about and that could be made into a significant issue in the future.

- Forty-nine percent (49%) say that they are either very concerned (17%) or somewhat concerned (32%) about the debt level, up from 43% a year ago.

- Twenty-four percent (24%) say they are not concerned at all about the debt and 26% say that they are only a little concerned.

| Level Of Concern About B.C. Hydro's Debt | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very concerned | 14 | 17 | 17 | 20 | 23 | 11 |
| Somewhat concerned | 29 | 32 | 34 | 25 | 32 | 34 |
| A little concerned | 23 | 26 | 25 | 29 | 24 | 29 |
| Not concerned at all | 34 | 24 | 24 | 27 | 21 | 26 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## WHO OWNS B.C. HYDRO

- In order to determine whether the people of British Columbia believe that since B.C. Hydro is owned by the provincial government it, in turn, belongs to all British Columbians, respondents were asked "who owns B.C. Hydro".

- The data in the table below indicates that people do not identify with B.C. Hydro as a company that is owned by the people. Instead, most see it as simply the property of the government.

| Who Owns B.C. Hydro? | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| B.C. Hydro belongs to the people of the province | 30 | 34 | 35 | 34 | 29 | 35 |
| B.C.Hydro is owned by the provincial government | 70 | 64 | 63 | 64 | 69 | 65 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Among the various subgroups analyzed, the ones that are most likely to say that B.C. Hydro belongs to the people include:

  * high income earners (44%)
  * weak conservationists (41%).

- The ones that are most likely to say that B.C. Hydro belongs to the government include:

  * those with an unfavourable image of B.C. Hydro (82%)
  * moderate conservationists (72%)
  * middle income earners (72%).

# SECTION FIVE

# CUSTOMER SERVICE

## OVERALL QUALITY OF SERVICE

- Respondents were asked to rate, on a ten-point scale, the quality of service they receive from four different organizations -- B.C. Hydro, Canada Post, their local gas utility, and B.C. Telephone.

- Once again, respondents have given B.C. Hydro the best service rating among the four organizations.

| Quality Of Service | Average Rating *(Maximum = 10.0)* | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| The electrical service from B.C. Hydro | 7.6 | 7.5 | 7.5 | 7.6 | 7.8 | 7.4 |
| The postal service from Canada Post | 4.4 | 5.0 | 5.2 | 4.6 | 4.5 | 4.7 |
| The natural gas service from your local gas company | 7.1 | 7.2 | 7.3 | 5.7 | 7.6 | 7.5 |
| The telephone service from B.C. Telephone | 7.1 | 7.0 | 6.8 | 7.2 | 7.5 | 7.3 |
| *Base:* | *577* | *595* | *275* | *124* | *98* | *98* |

- In addition, it should be noted that:

  * those who hold a favourable image of B.C. Hydro give it a better rating than those that hold an unfavourable image of it (7.8 vs. 5.6)
  * older people give it a better rating than younger people (7.7 vs. 7.2)
  * those that own their home give it a better rating than those who rent (7.8 vs. 7.2).

## HOW COMPLAINTS ARE HANDLED

- Almost one in five (18%) of respondents said that they had at some time in the past, lodged a complaint with B.C. Hydro. The remaining 82% had never filed a complaint.

- The biggest reason for lodging a complaint remains billing problems. The only other reasons mentioned with any frequency were because of power outages and because they were having difficulty getting someone from Hydro to come and inspect or install a new service.

| Lodging Of Complaints | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| **Have Lodged A Complaint Before:** | | | | | | |
| Yes | 21 | 18 | 17 | 19 | 20 | 12 |
| No | 79 | 82 | 82 | 80 | 80 | 87 |
| **Reasons For Lodging A Complaint** | | | | | | |
| Billing problem | 12 | 10 | 10 | 10 | 13 | 9 |
| Power outage/ interruption | 4 | 4 | 4 | 3 | 6 | 2 |
| Difficulty in getting someone from hydro for inspection | 3 | 3 | 2 | 3 | 5 | 1 |
| Rate problem | 3 | 3 | 4 | 3 | 2 | 1 |
| Complaint regarding an existing project/ facilities or Hydro activities in the area | 1 | - | - | - | - | - |
| Complaint regarding a proposed project in the area | - | 1 | 1 | - | - | 1 |
| Other | 4 | 2 | 2 | 4 | 3 | 2 |
| *Base:* | *577* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to say they have lodged a complaint with B.C. Hydro include:

  * those with an unfavourable image of B.C. Hydro (37%)
  * working females (26%)
  * demand side advocates (24%)
  * strong conservationists (22%)
  * those with a union member in household (22%).

- Those least likely to have lodged a complaint include:

  * low income earners (10%)
  * men (13%).

- While the sample is small (only 18% of the respondents), it should be noted that the manner in which complaints were handled has improved significantly. Down from 62% in February 1988, today fewer (44%) say that their compliant was handled in a somewhat unsatisfactory manner (23%) or a very unsatisfactory manner (21%). Although this is a positive change, there is still area for improvement in this regard.

| Manner In Which Complaint Was Handled | % of British Columbians who have lodged a complaint with B.C. Hydro | |
|---|---|---|
| | TOTAL | |
| | Feb. 1988 | Jan. 1989 |
| Very satisfactory manner | 19 | 18 |
| Somewhat satisfactory manner | 20 | 37 |
| Somewhat unsatisfactory manner | 29 | 23 |
| Very unsatisfactory manner | 33 | 21 |
| *Base:* | *147* | *102* |

## FREQUENCY OF CONTACT

- As was the case a year ago, the data shows that 29% say they have contacted B.C. Hydro in the last 12 months.

| Have Contacted B.C. Hydro In Past 12 Months | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 29 | 29 | 26 | 35 | 35 | 24 |
| No | 71 | 71 | 72 | 65 | 63 | 76 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those subgroups which seem to have the greatest frequency of contact with B.C. Hydro include:

  * strong conservationists (36%)
  * residents of Vancouver Island (35%)
  * residents of the Northern Interior (35%)
  * those with an unfavourable image of B.C Hydro (35%)
  * environmental activists (35%)
  * those that have some post-secondary education (35%).

- Of the 29% of respondents who have contacted B.C. Hydro in the past twelve months for any reason, the biggest reasons cited continue to be billing problems, power outages or installation problems.

| Reasons For Last Contact With B.C. Hydro | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Billing problem | 11 | 11 | 11 | 15 | 8 | 7 |
| Installation work | 8 | 6 | 6 | 6 | 9 | 7 |
| Power outage | 5 | 6 | 6 | 6 | 8 | 3 |
| Seeking information on energy conservation | 1 | 2 | 2 | 2 | 5 | - |
| Seeking information on electrical heating | 1 | 1 | 1 | 1 | - | - |
| Electrical inspection | 1 | 1 | 2 | 1 | 4 | - |
| Seeking information on Hydro's activities in the area | * | 1 | 1 | 1 | - | - |
| Other | 6 | 7 | 6 | 8 | 4 | 8 |
| *Base:* | *577* | *595* | *275* | *124* | *98* | *98* |

** Less than 1%*

## RATINGS OF COMPONENTS OF SERVICE

- Respondents were given a list of twelve aspects or components of service and asked, for each component, to rate firstly, how important that component is to them and secondly, how satisfied they are with the way Hydro delivers that component of service.

- Each rating was on a ten point scale where a rating of one means that the component of service is not at all important to them (or that they are not at all satisfied with the way that component of service is being delivered). A rating of ten means that the component of service is very important to them (or that they are very satisfied with the way in which that component of service is being delivered). The numbers between one and ten represent degrees between not important at all (not satisfied at all) and very important (very satisfied).

- The following table shows the difference between the importance rating and the satisfaction rating. Hydro should focus on improving service on those components for which this difference is greatest. In other words, these are the service areas where the gap between service expectations and customer service satisfaction is greatest. These areas include:

    * keeping electricity rates reasonable
    * encouraging public and customer input in decision-making
    * operating with the best interests of the British Columbia public in mind
    * keeping you informed about B.C. Hydro activities in your local area
    * being a good corporate citizen
    * handling customer inquiries, and complaints in an efficient, prompt, courteous manner.

- The following table demonstrates clearly that the biggest difference between the importance of a component of service and satisfaction with that component is on the issue of keeping electricity rates reasonable.

- The next biggest differences come from a cluster of issues which relate to Hydro's public information programs and the way Hydro handles customer inquiries and complaints. It is in this area that Hydro needs to strengthen its position.

- It is important to note that of the two components of service which receive the highest importance ratings -- reliable supply and fast restoration of power -- Hydro also gets the highest satisfaction rating. Clearly in these areas Hydro is doing very well.

| Components of Service | Average Rating *(Maximum = 10.0)* | | |
|---|---|---|---|
| | Importance Rating | Satisfaction Rating | Net Difference (+/-) |
| Keeping electricity rates reasonable | 8.3 | 5.7 | -2.6 |
| Encouraging public and customer input in decision-making | 7.4 | 5.6 | -1.8 |
| Operating with the best interests of the British Columbia public in mind | 8.2 | 6.5 | -1.7 |
| Keeping you informed about B.C. Hydro activities in your local area | 7.6 | 6.1 | -1.5 |
| Being a good corporate citizen | 7.9 | 6.5 | -1.4 |
| Handling customer inquiries, complaints in an efficient, prompt, courteous manner | 8.4 | 7.0 | -1.4 |
| Keeping customers well advised of any changes affecting rates, billing procedures, service, etc. | 8.3 | 7.0 | -1.3 |
| Demonstrating a conscientiousness and concern for safety of the general public | 8.2 | 7.1 | -1.1 |
| Providing information on or assistance concerning how to use electricity more efficiently or cost effectively | 7.6 | 6.6 | -1.0 |
| Ensuring there will be a reliable/ dependable supply of electricity; that is, power will be available when you want it | 8.5 | 7.5 | -1.0 |
| Having simple, clear, easy to understand billing procedures | 8.3 | 7.3 | -1.0 |
| Speed in restoring power when an outage arises | 8.6 | 8.0 | -0.6 |
| *Base: (595)* | | | |

# SECTION SIX

# ATTITUDES TOWARD RATES

## EXPECTED ANNUAL RATE INCREASE IN COMING YEARS

- There has been no change in the past year in the expected rate of annual increase in electricity rates. On average, British Columbians continue to say that they expect electricity rates to increase at a rate of 6.1% annually for the next few years. That is, they are expecting electricity rate increases to be at or above the current rate of inflation.

| Expectations For Electricity Rate Increases | Average Expected Per Cent Annual Rate Increase | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | | INCOME | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior | Under $20,000 | $20,000 to $34,000 | $35,000 or more |
| Average Expected Rate Increase Per Year | 6.1 | 6.1 | 5.9 | 6.8 | 6.2 | 5.8 | 6.6 | 6.3 | 5.6 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* | *702* | *702* | *595* |

- Those giving the highest average expected rate increase for electricity rates are:
  - * Vancouver Island residents (6.8%)
  - * lower income earners (6.6%).

- Those giving the lowest average expected rate increase for electricity rates are:
  - * those whose personal income is in excess of $35,000 (5.6%).

- In addition to overall rate increases over the next few years, respondents were asked to estimate how much they feel that their rates will increase, on average over the next five years. The data shows that estimates for personal rate increases for the next five years are slightly lower than estimates for overall short term rate increases (5.1% vs. 6.1%).

| Expected Average Annual Increase In Personal Electricity Rates In The Next Five Years | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Less than 2% | 17 | 18 | 15 | 11 | 21 |
| More than 2% to 3% | 21 | 25 | 12 | 24 | 16 |
| More than 4% to 5% | 26 | 26 | 28 | 30 | 23 |
| More than 5% to 6% | 9 | 8 | 12 | 13 | 9 |
| More than 6% to 10% | 15 | 13 | 17 | 13 | 23 |
| More than 10% to 15% | 7 | 6 | 10 | 6 | 5 |
| More than 15% | 4 | 4 | 5 | 2 | 2 |
| **Average** | **5.1** | **4.9** | **5.9** | **5.0** | **5.0** |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Subgroup analysis indicates that those that anticipate the highest personal increases in electricity rates in the next five years include:

  * Vancouver Island residents (5.9%)
  * those that have an unfavourable image of B.C. Hydro (5.6%).

- When asked what a reasonable increase in electricity rates would be, the average response given was 2.5%. This is less than half of the rate increase that people actually expect (5.1%).

| Average Annual Increase In Electricity Rates Considered Reasonable | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Zero, no increase | 33 | 33 | 31 | 47 | 26 |
| More than 2% to 3% | 41 | 41 | 36 | 43 | 47 |
| More than 4% to 5% | 17 | 15 | 21 | 7 | 24 |
| More than 5% to 6% | 4 | 5 | 4 | 2 | 1 |
| More than 6% to 10% | 4 | 5 | 2 | 1 | 2 |
| More than 10% to 15% | 1 | 1 | 2 | - | - |
| More than 15% | 1 | * | 1 | - | 1 |
| **Average** | **2.5** | **2.5** | **2.7** | **1.6** | **2.6** |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

** Less than 1%*

- Among the various subgroups analyzed, the residents of the Northern Interior give the lowest average increase that they feel is reasonable (1.6%).

## REASONABLENESS OF RATES

- As the following data indicates, little has changed in the perception of the reasonableness of B.C. Hydro's rates in the past year. Generally, they are still considered to be fairly reasonable and a good value. However, there is a significant minority who do not think that B.C. Hydro's rates are that good a value and this is something the corporation should be sensitive to. There is room to improve customer perceptions about the value they are getting for the money in their rates.

| Agreement With The Statement That B.C Hydro Rates Are Reasonable | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Agree strongly | 7 | 7 | 7 | 7 | 4 | 6 |
| Agree somewhat | 43 | 40 | 46 | 31 | 26 | 39 |
| Agree a little | 27 | 27 | 27 | 33 | 33 | 17 |
| Not agree at all | 23 | 26 | 20 | 29 | 38 | 38 |
| Index *(Maximum = 100)* | 44 | 43 | 47 | 40 | 32 | 38 |
| *Base:* | *577* | *595* | *275* | *124* | *98* | *98* |

- Those least likely to feel that B.C. Hydro has reasonable rates include:
  - * those with an unfavourable image of B.C. Hydro (Index = 17)
  - * Norther Interior residents (32)
  - * Southern Interior residents (38)
  - * lower income earners (38).

## WHOSE INTERESTS DO ELECTRICITY RATES IN B.C REFLECT

- British Columbians are less inclined to believe that B.C. Hydro's rates reflect the interests of the business customer than they were a year ago (31% vs. 41%). However, respondents still feel that Hydro rates are set more in the interest of business customers (31%) and Hydro management (34%) than in the interest of Hydro's residential customers (20%).

| Do You Think B.C. Hydro's Rates Most Reflect The Interest Of ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Hydro's residential customer | 20 | 20 | 23 | 9 | 13 | 27 |
| Hydro's business customer | 41 | 31 | 32 | 29 | 40 | 26 |
| Hydro's management | 37 | 34 | 28 | 52 | 40 | 31 |
| Don't know/ can't say | 2 | 15 | 18 | 10 | 7 | 16 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those most inclined to say that Hydro rates reflect the interests of residential customers include:
  - * middle income earners (26%)
  - * those with no post-secondary school education (26%).

- Those least inclined to say that Hydro rates reflect the interests of residential customers include:
  - * Vancouver Island residents (9%)
  - * higher income earners (12%)
  - * residents of the Northern Interior (13%)
  - * those with some post-secondary education (14%).

- Among the sub-groups examined, respondents with an unfavourable image of B.C. Hydro (21%) and middle income earners (25%) are the least likely to feel that Hydro rates most serve the interests of business customers.

- In contrast, residents of the Northern Interior (40%) and weak conservationists (38%) were the most likely to indicate that Hydro's rates most serve the interests of business customers.

- Those that are the least likely to indicate that Hydro rates reflect the interests of Hydro management include:

    * lower income earners (26%)
    * Vancouver residents (28%)
    * weak conservationists (28%).

- On the other hand, those with an unfavourable image of B.C. Hydro (50%) and residents of the Northern Interior (40%) are the most likely to say that B.C. Hydro rates serve the interests of Hydro management.

## ATTITUDES TOWARD RATE INCENTIVES FOR INDUSTRY

- When asked if B.C. Hydro should be offering special incentives or discounts on electrical power rates or equipment to try to attract industry to the province or encourage industry to expand, we find that, once again, most British Columbians (65%) support this type of incentive program.

| Should B.C.Hydro Be Offering Special Incentives To Try To Attract Industry To The Province Or Encourage Industry And Business To Expand? | % of British Columbians | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total 1989 | REGION | | | | PRIVATE SECTOR INVOLVEMENT | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior | A lot/ some | A little/ not at all | Not at all |
| Yes | 65 | 57 | 71 | 78 | 83 | 70 | 62 | 55 |
| No | 24 | 27 | 28 | 16 | 12 | 18 | 29 | 35 |
| No opinion | 10 | 16 | 1 | 6 | 5 | 12 | 9 | 9 |
| *Base:* | *595* | *275* | *124* | *98* | *98* | *270* | *320* | *175* |

- Sub-group analysis reveals that those most likely to approve of this type of incentive include:

  * residents of the Southern Interior (83%)
  * supply side advocates (81%)
  * residents of the Northern Interior (78%)
  * Vancouver Island residents (71%)
  * those that make less than $20,000 annually (71%).

- Among the sub-groups analyzed, the ones least likely to approve of such an incentive program include:

  * demand side advocates (54%)
  * Vancouver residents (57%).

- Respondents were also asked if a similar incentive program, this time offered by the provincial government, should be implemented. Again, this type of incentive program is supported by a majority of respondents, though a slightly smaller majority than for a program financed by B.C. Hydro.

| Should The Provincial Government Be Offering Special Incentives Or Discounts On Electrical Power Rates Or Equipment To Try To Attract Industry To The Province Or Encourage Industry And Business To Expand? | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 61 | 52 | 67 | 67 | 85 |
| No | 28 | 32 | 32 | 28 | 12 |
| No opinion | 10 | 16 | 2 | 5 | 3 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to approve of a provincial government incentive program include:

  * residents of the Southern Interior (85%)
  * supply side advocates (72%)
  * those with no post-secondary school education (68%)
  * Vancouver Island residents (67%)
  * residents of the Northern Interior (67%)
  * middle income earners (67%).

- Those least likely to approve of such an incentive program include:

  * those with an unfavourable image of B.C. Hydro (54%)
  * Vancouver residents (52%).

## B.C. HYDRO'S ROLE AS IT RELATES TO ECONOMIC DEVELOPMENT

- In response to the question of whether guaranteed long term rates should be offered to companies in order to protect against rate increases as an incentive to attract industry to the province, a small majority approve of such a policy (53%).

| Response To Offering Companies Guaranteed Long Term Rates Providing Protection Against Increases To Attract Industry | % of British Columbians | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total 1989 | REGION | | | | PRIVATE SECTOR INVOLVEMENT | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior | A lot/ some | A little/ not at all | Not at all |
| Would approve | 53 | 50 | 48 | 57 | 65 | 50 | 48 | 57 |
| Would disapprove | 33 | 31 | 43 | 38 | 27 | 31 | 43 | 38 |
| No opinion | 14 | 19 | 9 | 5 | 8 | 19 | 9 | 5 |
| *Base:* | *595* | *275* | *124* | *98* | *98* | *275* | *124* | *98* |

- Subgroup analysis reveals that those most likely to approve of guaranteed long term rates for industry include:

  * residents of the Southern Interior (65%)
  * supply side advocates (61%)
  * those over 35 years of age (59%)
  * men (58%).

- Those that are least likely to approve of guaranteed long term rates include:

  * those under 35 years of age (43%)
  * women (47%).

# SECTION SEVEN

# CORPORATE PRIORITIES AND SUPPLY-DEMAND SIDE OPTIONS

## MOST IMPORTANT ISSUE FACING B.C. HYDRO

- Respondents were asked what they think is the most important single issue facing B.C. Hydro. The responses, shown below, have changed very little in the last year.

- The results found in this table closely match the priorities which emerge throughout this study.

- British Columbians continue to be concerned about:

  * the need to keep rates down and the associated need to keep B.C. Hydro's operating costs down
  * the need to meet demand for electricity in the future
  * the environmental implications of electricity generation.

| Most Important Issue/ Challenge Facing B.C. Hydro (Selected) | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Keeping rates down | 18 | 18 | 16 | 21 | 25 | 19 |
| Ensuring future demand for electricity is met | 16 | 16 | 16 | 14 | 14 | 22 |
| Controlling costs | 8 | 6 | 6 | 5 | 3 | 6 |
| Environmental issues | 7 | 7 | 9 | 6 | 8 | 2 |
| Future planning/ managing rate of future growth | 3 | 6 | 4 | 10 | 5 | 6 |
| Service reliability/ dependability | 2 | 3 | 4 | 3 | 3 | 1 |
| Energy conservation | 2 | 6 | 7 | 6 | 5 | 2 |
| Free trade | N/A | 3 | 3 | 7 | 3 | 3 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Respondents were then asked how satisfied they are with the way in which B.C. Hydro is handling the issue which they had identified as the most important issue, or challenge, facing B.C. Hydro.

- As the following table shows, British Columbians express slightly more satisfaction with the way B.C. Hydro has handled key issues than they did one year ago.

| Level Of Satisfaction With The Way B.C. Hydro Is Handling Key Issues | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very satisfied | 7 | 6 | 6 | 10 | 1 | 5 |
| Somewhat satisfied | 41 | 46 | 47 | 37 | 47 | 53 |
| Not very satisfied | 27 | 27 | 27 | 28 | 36 | 25 |
| Not at all satisfied | 17 | 10 | 10 | 13 | 8 | 10 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Environmental activists are among the most likely to express dissatisfaction with the way B.C Hydro is handling key issues.

# SECTION EIGHT

# B.C. HYDRO AND THE ENVIRONMENT

- The following table summarizes the satisfaction ratings for B.C. Hydro's handling of the four most often cited priority issues facing B.C. Hydro by the respondents citing each issue as a priority.

- Although the bases sizes are small, the data indicates that British Columbians are most satisfied with B.C. Hydro's performance in ensuring that future demand for electricity is met.

| **Satisfaction With B.C. Hydro's Handling Of ...** | Index of Satisfaction (*Max. = 100*) | % of British Columbians who name each issue as the most important issue facing B.C. Hydro | | | |
|---|---|---|---|---|---|
| | | **SATISFACTION** | | | |
| | | Very satisfied | Somewhat satisfied | Not very satisfied | Not at all satisfied |
| Ensuring future demand for electricity is met *Base: (96)* | 60 | 9 | 65 | 18 | 5 |
| Environmental issues *Base: (42)* | 51 | 3 | 46 | 42 | 3 |
| Keeping rates down *Base: (113)* | 46 | 6 | 40 | 36 | 15 |

## GENERATING CAPACITY

- Compared with one year ago, fewer British Columbians believe that B.C. has more generating capacity than it needs (51% vs. 42%). Furthermore, the number of Britsh Columbians that believe B.C. has about the right amount of generating capacity is up from one year ago (29% vs. 33%).

- Ten percent (10%) say that the province has less electrical generating capacity than it needs.

| With Respect To Generating Capacity, B.C. Hydro Has ... | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| More electrical generating capacity than it needs | 51 | 42 | 41 | 45 | 46 | 41 |
| Less electrical generating capacity than it needs | 9 | 10 | 12 | 7 | 10 | 10 |
| About the right amount | 29 | 33 | 33 | 35 | 28 | 36 |
| Don't know/ no opinion | 11 | 14 | 15 | 13 | 16 | 13 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- British Columbians that hold an unfavourable image of B.C. Hydro (59%) and those that make in excess of $35,000 a year (48%) are the most likely to believe that B.C. Hydro has more electrical generating capacity than it needs.

- As was the case a year ago, approximately three in five (60%) believe that some excess capacity is essential as insurance in case demand for power increases faster than expected. Only 39% reject this concept because they are concerned that the capital cost involved in building new generating facilities would cause rates to be higher than they might otherwise have to be.

| Feelings Toward Having Excess Generating Capacity | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| It is a good thing to have excess capacity for insurance in case demand for power increases faster than expected and as an attraction for industry | 57 | 60 | 56 | 55 | 63 | 76 |
| It is not a good thing because of the capital investment cost and possibility of rates being higher than they might otherwise be | 41 | 39 | 43 | 41 | 36 | 23 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to agree with the statement that excess capacity is good include:

  * residents of the Southern Interior (76%)
  * supply side advocates (68%).

- Those most likely to agree with the statement that excess capacity is not a good thing include:

  * those with an unfavourable image of B.C. Hydro (46%)
  * environmental activists (48%)
  * demand side advocates (46%)
  * those with an unfavourable image of B.C. Hydro (46%).

## B.C. HYDRO'S PRIORITIES

- Respondents were asked to rank, in order of priority, four possible corporate objectives for B.C. Hydro: keeping rates down, always being able to meet demand, minimizing the environmental effects of electricity generation and promoting electricity conservation.

- Responses have varied little since last year and the conclusions made then are still relevant in January 1989. The important conclusions to note are the following:

    * Meeting demand must remain a top priority of B.C. Hydro. It is essential if B.C. Hydro is to be able to meet its customers expectations for reliable service.

    * Minimizing pollution or negative effects on the environment is also a top priority. The environment is growing in importance as a major public concern in British Columbia and B.C.Hydro must be seen to be responding to this increased concern.

    * B.C. Hydro must position itself as an environmentally responsible corporate citizen of the province.

    * The other two objectives -- keeping rates down and promoting conservation -- virtually tie for third place among the corporate objectives tested.

| B.C. Hydro's Priorities | Average Priority Ranking *(Highest = 1.0, Lowest = 4.0)* | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Ensuring there will always be an adequate supply of electricity; that is, enough power will be available | 2.0 | 2.1 | 2.2 | 2.0 | 2.0 | 1.8 |
| Minimizing pollution or negative effects on the environment | 2.5 | 2.2 | 2.2 | 2.2 | 2.1 | 2.5 |
| Keeping electricity rates as low as possible even if this encourages consumers to use more electricity | 2.8 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 |
| Encouraging consumers to use electricity wisely and efficiently to reduce the need to build new generating stations even if this requires slightly higher rates | 2.8 | 2.9 | 2.9 | 2.7 | 3.0 | 2.9 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Respondents were also given another way to express what they thought the corporate priorities of B.C. Hydro should be. They were given eight statements and asked if they agree strongly, agree somewhat, disagree strongly or disagree somewhat with the statements.

As the following table indicates, the conclusions that can be drawn from this data have not altered significantly since February, 1988. The results show clearly the following points:

* Meeting demand should be the top priority of B.C. Hydro.

* Reliable electricity is considered an essential component of economic growth, and this is one of the reasons why meeting demand must be Hydro's top priority.

* There is a fair degree of concern that Hydro's expansion plans will cause rates to become unnecessarily high in order to pay for the building of generating stations which are not necessary to meet the needs British Columbians.

* People want Hydro to actively promote conservation or the efficient use of electricity in order to slow down as much as possible the need to build new generating stations, and this conservation ethnic is growing.

* However, virtually an equal number of people want B.C. Hydro to promote the greater use of electricity as an economical, reliable energy source and as an alternative to other fuels in cases where it makes economic sense to do so.

* People are highly skeptical of the argument that if rates decrease this will cause people to waste electricity and so make it necessary for B.C.Hydro to build new generating stations faster than they would otherwise have to. The idea that increasing rates is essential to encourage conservation will receive little public support because of the widespread belief that excess generating capacity already exists in the system and the strong public desire for lower rates.

* There is reasonable support for Hydro's rates being set by an agency which is truly independent from government control and Hydro control.

* There is no consensus among people with the statement that B.C. Hydro's spending is out of control.

* There is substantial disagreement with the contention that people in B.C. should not have to worry about conserving electricity because of an abundant supply.

| Attitudes To B.C. Hydro's Role In The Future | Index of Agreement (*Maximum = 100*) | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| B.C Hydro has an obligation to ensure that our economic growth is not constrained by a shortfall of electricity supply | 76 | 77 | 75 | 79 | 79 | 80 |
| B.C. Hydro should be concentrating on conservation and promoting more efficient use of electricity, not building new electricity generating facilities | 66 | 72 | 74 | 72 | 76 | 66 |
| B.C. Hydro should be promoting greater use of electricity as economical, reliable energy source and an alternative to other fuels | 64 | 68 | 68 | 65 | 69 | 70 |
| Unless B.C. Hydro 's expansion plans for the future are curbed, we are going to have to pay unnecessarily high electricity rates for more electrical power than we will need | 63 | 61 | 63 | 59 | 56 | 61 |
| I would feel better about Hydro's rates if they were set by an independent regulatory agency which was free from government control and Hydro's control | 61 | 64 | 63 | 71 | 61 | 60 |
| B.C. Hydro's spending is out of control | 51 | 52 | 50 | 55 | 55 | 51 |
| If electricity rates decrease, this will cause people to waste electricity and so make it necessary for B.C. Hydro to build new generating stations faster than they would otherwise have to | 41 | 42 | 43 | 42 | 34 | 45 |
| We should not have to worry about conserving electricity because B.C. has lots of electricity and we can always build more generating capacity | 39 | 33 | 35 | 28 | 27 | 37 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- All of the above data, when viewed together, suggest that B.C. Hydro's corporate priorities should be:

    * meeting demand/reliable supply

    * minimizing pollution and environmental damage

    * promoting the efficient use of electricity, thus promoting both conservation and greater use in cases where it is economical and efficient to do so

    * keeping rates down.

- Also, it should be noted that without a very carefully orchestrated communications campaign, it will be difficult to sell the concept that increasing rates is necessary in order to slow down the need for new generating facilities.

## RATES VERSUS RELIABILITY OF SUPPLY AND THE ENVIRONMENT AS CORPORATE PRIORITIES

- When respondents were given pairs of possible objectives for B.C. Hydro, an analysis of responses to these trade off questions shows that the priority given to these potential Hydro objectives is, in order, the following:

    * minimizing the environmental risk associated with the generation of electricity
    * ensuring there will be no shortages of electricity in the future
    * providing reliable service, that is minimizing breakdowns, power failures and interruptions of service
    * keeping rates as low as possible.

- It is important to note that while the responses to each of the trade off questions varies from one segment to another, the order of priority, or the ranking, does not change. It remains the same for all segments.

- One should also note that the concept of reliability has two components: adequate supply and the quick repair of a service failure. As other studies for B.C. Hydro have shown, to the average citizen, reliability means having electricity when you need it. Customers do not distinguish between poor reliability due to a shortage of supply and poor reliability due to slow repair time. They strongly dislike both.

- It is noteworthy that in this trade-off exercise minimizing environmental damage from the generation of electricity is ranked ahead of ensuring a reliable supply of electricity in future. This reflects the strength of feeling and concern about the environment as well as a tendency on the part of the population to take reliability of supply for granted.

| In Planning For British Columbia's Future Electricity Needs B.C. Hydro Should Attach Greater Importance To ... | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Ensuring there will be no shortages of electricity in the future | 37 | 36 | 35 | 34 | 45 |
| Ensuring there is minimal environmental risk associated with the generation of electricity | 62 | 63 | 64 | 64 | 55 |
| No opinion | 1 | 1 | 1 | 2 | - |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| Ensuring there will be no shortages of electricity in the future | 55 | 55 | 51 | 55 | 63 |
| Providing reliable service, minimizing breakdowns, power failures, and service interruptions | 44 | 44 | 49 | 43 | 36 |
| No opinion | 1 | 1 | - | 2 | 1 |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| Keeping electricity rates as low as possible | 28 | 30 | 23 | 25 | 28 |
| Ensuring there is minimal environmental risk associated with the generation of electricity | 71 | 69 | 77 | 71 | 71 |
| No opinion | 1 | 1 | - | 4 | 1 |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| Ensuring there will be no shortages of electricity in the future | 66 | 63 | 67 | 72 | 71 |
| Keeping electricity rates as low as possible | 34 | 37 | 33 | 27 | 29 |
| No opinion | - | - | - | 1 | - |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| Providing reliable service, minimizing breakdowns, power failures, and service interruptions | 71 | 68 | 75 | 74 | 71 |
| Keeping electricity rates as low as possible | 29 | 32 | 25 | 25 | 29 |
| No opinion | - | - | - | 1 | - |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## PUBLIC INTERPRETATION OF THE TERM "ENVIRONMENT"

- People were asked what they think of when they hear the term "environment". What comes to mind most readily are various kinds of environmental problems such as air pollution, the threat to wildlife, protecting and preserving the land and the lakes, and water pollution. In other words, the term "environment" has a strong negative connotation to the extent that it triggers predominantly negative associations concerning the quality of the environment.

| **What Is An Environmental Issue?** (Selected) | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Air pollution/ damaging to the ozone | 26 | 24 | 28 | 22 | 31 |
| Conditions of our wildlife/ threat to/ preservation of wildlife | 26 | 30 | 23 | 23 | 21 |
| Preservation of land and lakes/ protecting land and lakes from development/ conservation of parks/ recreation areas/ countryside/ forests | 25 | 23 | 25 | 27 | 29 |
| Water pollution | 24 | 21 | 27 | 17 | 34 |
| Pollution/ concern about pollution (*general mention*) | 19 | 19 | 23 | 14 | 16 |
| Anything that affects the environment/ hurts the earth | 15 | 11 | 23 | 23 | 11 |
| Damming of rivers/ harmful to salmon run/ fish | 13 | 9 | 18 | 25 | 11 |
| The land that we live on/ nature/ natural surroundings | 11 | 11 | 8 | 12 | 16 |
| Chemical spills/ toxic spills/ waste | 10 | 10 | 10 | 11 | 10 |
| Acid rain | 9 | 11 | 2 | 7 | 12 |
| Lakes/ streams/ rivers/ condition of the waterways | 8 | 7 | 11 | 6 | 10 |
| Industries that have no regard for environment/ put profit ahead of environment | 6 | 5 | 5 | 7 | 11 |
| Nuclear waste/ storage/ disposal/ atomic spills/ radiation | 5 | 4 | 6 | 4 | 5 |
| Chemical pollution of the land/ pesticides | 4 | 5 | 3 | 1 | 2 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## CATEGORIZING SPECIFIC ISSUES AS ENVIRONMENTAL OR NON-ENVIRONMENTAL

- Respondents were given a series of issues and asked whether they consider each to be an environmental issue or not. Results are summarized in the table below. Virtually all of the issues evaluated are considered to be environmental issues to at least some extent. However, public opinion is more divided on whether electric transmission lines and road construction constitute an environmental problem or not.

| Are These Environmental Issues? | % of British Columbians | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total 1989 | REGION | | | | GENDER | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior | Male | Female | Working female |
| Transportation of hazardous chemicals | 96 | 94 | 98 | 96 | 99 | 92 | 99 | 98 |
| Sewage treatment/ adequacy of sewage treatment facilities | 93 | 93 | 95 | 95 | 90 | 92 | 94 | 97 |
| Endangerment of wildlife due to development | 92 | 94 | 95 | 93 | 82 | 89 | 97 | 98 |
| Forestry tree cutting operations | 88 | 90 | 86 | 87 | 86 | 84 | 93 | 95 |
| Loss of prime farmland to development | 85 | 86 | 90 | 83 | 78 | 83 | 87 | 91 |
| Mining exploration and development | 82 | 82 | 85 | 86 | 77 | 80 | 84 | 88 |
| Development of major hydro-electric projects | 80 | 82 | 77 | 79 | 76 | 78 | 81 | 83 |
| Loss of recreational lands to development | 74 | 77 | 75 | 67 | 65 | 69 | 78 | |
| Electric power transmission lines | 66 | 71 | 67 | 55 | 54 | 62 | 71 | 76 |
| Road construction | 62 | 64 | 66 | 54 | 54 | 60 | 64 | 67 |
| *Base:* | *595* | *275* | *124* | *98* | *98* | *291* | *304* | *135* |

- The data indicates that residents of the Southern Interior and women, especially working women, are more likely to say that many of these issues are environmental issues.

## ENVIRONMENTAL ISSUE DETERMINANTS

### Criteria Used To Define The Seriousness Of An Environmental Issue

- Respondents were given a list of eight factors and asked to rank them according to how important they feel each is in determining how serious a particular environmental issue or problem is. The priority ranking which results is the following:

  Factors Deemed Most Important In Environmental Issue Assessment

  1. The extent to which public health is endangered
  2. The extent to which air and water quality is affected
  3. The extent to which wildlife is interfered with
  4. The extent to which agricultural land is interfered with
  5. The extent to which the natural beauty of the landscape is interfered with
  6. The extent to which recreational land is interfered with
  7. The extent to which private property is affected.

- These findings indicate that public health and concern about air and water quality are the dominant factors which B.C. residents feel should be taken into consideration in making any determination about the relative seriousness and importance of any given environmental issue or problem. Impact on agricultural lands and wildlife are other key criteria that people feel should be used in assessing the seriousness of environmental problems. More aesthetic considerations, such as the impact on recreational areas, the beauty of the landscape, or private property are considered less important factors.

| Relative Importance Of These Factors In Determining How Serious An Environmental Problem Is | Average Importance Rank *(Highest = 1.0, Lowest = 8.0)* | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| The extent to which public health and safety is endangered | 2.5 | 2.7 | 2.5 | 2.0 | 2.3 |
| The extent to which water quality is affected | 3.1 | 3.2 | 3.0 | 2.8 | 3.0 |
| The extent to which air quality is affected | 3.1 | 3.1 | 3.3 | 2.9 | 2.9 |
| The extent to which wildlife is interfered with | 4.1 | 4.0 | 3.9 | 3.9 | 4.8 |
| The extent to which agricultural land is interfered with | 4.8 | 5.0 | 4.4 | 4.8 | 4.6 |
| The extent to which the natural beauty of the landscape is interfered with | 5.8 | 5.7 | 5.8 | 6.1 | 5.9 |
| The extent to which recreational areas are interfered with | 6.2 | 6.0 | 6.6 | 6.6 | 6.5 |
| The extent to which private property is affected | 6.3 | 6.4 | 6.2 | 6.4 | 6.2 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## SATISFACTION WITH THE QUALITY OF THE ENVIRONMENT

- British Columbians are more satisfied (64%) than dissatisfied (36%) with the overall quality of the environment in B.C. today by a margin of two to one.

| Satisfaction With The Quality Of The Environment In B.C. Today | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very satisfied | 14 | 16 | 7 | 10 | 18 |
| Somewhat satisfied | 50 | 52 | 42 | 49 | 52 |
| Somewhat dissatisfied | 26 | 22 | 38 | 30 | 20 |
| Very dissatisfied | 10 | 10 | 13 | 10 | 10 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those sub-groups analyzed that are most likely to be satisfied with the quality of the environment include:

  * supply side advocates (72%)
  * residents of the Southern Interior (71%)
  * weak conservationists (71%).

- Those most likely to be dissatisfied with the quality of the environment include:

  * those with an unfavourable image of B.C. Hydro (51%)
  * environmental activists (50%)
  * demand side advocates (46%).

- There is also a fairly widespread sense of satisfaction (57%) with the progress that has been made in protecting the environment since the beginning of the 1970's.

| Attitude To Progress Made In Protecting The Environment In B.C. Since The 1970's | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very pleased | 9 | 10 | 5 | 8 | 10 |
| Somewhat pleased | 48 | 50 | 43 | 42 | 51 |
| Somewhat disappointed | 30 | 27 | 36 | 38 | 31 |
| Very disappointed | 12 | 12 | 15 | 13 | 8 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to be pleased with the progress made to protect the environment include supply side advocates (65%).

- Those most likely to be disappointed with the progress made include:

  * environmental activists (60%)
  * those with an unfavourable image of B.C. Hydro (53%)
  * Vancouver Island residents (51%)
  * Northern Interior residents (50%).

## B.C. HYDRO AS A POLLUTER

- When asked, three in five (60%) British Columbians say that they do not think of B.C. Hydro as a polluter.

| Incidence Of Thinking Of B.C. Hydro As A Polluter | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 39 | 43 | 35 | 34 | 32 |
| No | 60 | 56 | 63 | 66 | 68 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most inclined to think of B.C. Hydro as a polluter include:
  - * those with an unfavourable image of B.C. Hydro (50%)
  - * environmental activists (50%)
  - * demand side advocates (47%)
  - * renters (46%)
  - * working women (45%)
  - * those under 35 (45%).

- Residents of the Southern Interior (68%) and residents of the Northern Interior are the most likely to think of B.C. Hydro as a polluter.

## ENVIRONMENTAL ACTIVISM

- Overall, about two in five B.C. residents say that they have involved themselves in specific activities to express their concern about environmental issues such as writing letters to a newspaper (10%) or elected official (13%), contributing to environmental groups (27%), participating in a protest of an environmental nature (12%), or attending an environmental hearing (17%). Giving to an environmental group is the most common type of activism.

- The environmental activist cell referred to in this report was defined according to how people responded to this question. It includes all those who have taken part in any of these activities.

| Incidence Of Having Done Any Of The Following To Demonstrate Concern About Environmental Issues | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Writing letters to an elected official | 13 | 15 | 15 | 12 | 4 |
| Writing letters to a newspaper | 10 | 11 | 16 | 5 | 4 |
| Contributing to environmental concern groups | 27 | 28 | 29 | 17 | 26 |
| Participating in a protest of an environmental nature | 12 | 16 | 8 | 9 | 4 |
| Participating in or attending an environmental hearing | 17 | 16 | 22 | 17 | 16 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to have taken part in any of these activities include:

  * those with some post-secondary educations (53%)
  * demand side advocates (52%)
  * households with one member that belongs to a union (51%)
  * higher income earners (51%)
  * those with an unfavourable image of B.C. Hydro (50%)
  * Vancouver Island residents (45%)

## ENVIRONMENTAL CODE OF CONDUCT OF CROWN CORPORATIONS

- The vast majority of respondents (96%) believe that publicly owned corporations should adhere to an environmental code of conduct that is at least as stringent (57%) or more stringent (39%) than that of private corporations. Few (4%) believe that publicly owned corporations should adhere to an environmental code of conduct that is less stringent than that of private corporations. People are really saying they want and expect public corporations to provide leadership when it comes to their conduct regarding environmental concerns.

| Expected Code Of Conduct Of Public Corporations | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| The same as that expected of privately owned companies | 57 | 55 | 54 | 63 | 63 |
| More rigid or stringent than that expected of privately owned companies | 39 | 39 | 44 | 37 | 35 |
| Less rigid or stringent than that expected of privately owned companies | 4 | 6 | 2 | - | 2 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Among the sub-groups analyzed, environmental activists (50%) are the most likely to believe that crown corporations should adhere to a more stringent code of conduct than privately owned companies.

## SATISFACTION WITH B.C. HYDRO'S ACTIONS TO PROTECT THE ENVIRONMENT

- As was the case one year ago, British Columbians are slightly more satisfied than dissatisfied with B.C. Hydro's actions to protect the environment. Moreover, compared to a year ago, satisfaction has increased (44% in February 1988 vs. 51% in January 1989).

| Level Of Satisfaction With B.C. Hydro's Actions To Protect The Environment | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very satisfied | 8 | 8 | 8 | 6 | 9 | 8 |
| Somewhat satisfied | 36 | 43 | 42 | 46 | 36 | 43 |
| Neither | 30 | 31 | 32 | 25 | 35 | 33 |
| Somewhat dissatisfied | 19 | 12 | 12 | 11 | 18 | 13 |
| Very dissatisfied | 6 | 4 | 4 | 9 | 2 | 2 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to be dissatisfied with B.C. Hydro's action include:
  - * those with an unfavourable image of B.C. Hydro (37%)
  - * environmental activists (28%)
  - * demand side advocates (25%).

## ENVIRONMENTAL CONCERNS ASSOCIATED WITH B.C. HYDRO

### Unaided Response

- When respondents are asked in an unaided, open ended question what kind of environmental problems or issues they were concerned about with respect to B.C. Hydro's activities, a full range of answers are given. Moreover, as the following table shows, there is significant regional variation in the environmental issues which people are concerned about.

- It is important to note that only 11% of respondents said that there is no environmental issue related to B.C. Hydro which they are concerned about. The remaining 89% of respondents mentioned at least one issue. This reinforces the result which appears in many places in this study - that the environment is a significant issue with respect to B.C. Hydro in the mind of the average British Columbian.

- In the past year, few environmental issues have become less of a concern with British Columbians. In fact many issues have become a concern of an even greater number of people. Those issues that have had the greatest increase in people mentioning them as a concern include:

    * water pollution
    * air pollution
    * the disposal of chemicals or PCB's
    * the use of herbicides to control vegetation
    * acid rain
    * the transportation of hazardous wastes.

- Despite these changes, the following table shows that the data can be categorized into the same four classes of environmental problems associated with B.C. Hydro as was applicable in February 1988. They are, in order of importance:

    1) problems related to Hydro dams, including flooding of agricultural land, destroying wildlife, water levels in lakes above dams, and water pollution

    2) toxic chemical problems including the disposal and transportation of PCB's from transformers, the use of herbicides to control vegetation along power line rights-of-way

    3) acid rain or air pollution problems

    4) the environmental and agricultural damage caused by the construction of power lines and the health effects of transmission lines.

- In addition to regional variations, there is also a clear pattern among the various segments examined:

  * younger people are more concerned than older people
  * renters are more concerned than homeowners
  * lower income earners are more concerned than higher income earners, except for the set of transmission line related problems where their level of concern is equal
  * women, especially working women, are more concerned than men
  * the stronger a conservationist a respondent is, the greater his/her concern about the environmental issues associated with B.C. Hydro.

| Issues Of Concern With Respect To B.C. Hydro's Activities Or Operations | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Dams destroying wildlife | 51 | 45 | 45 | 42 | 70 | 38 |
| Flooding of agricultural lands | 39 | 30 | 31 | 20 | 42 | 35 |
| Water pollution | 37 | 54 | 59 | 43 | 58 | 52 |
| Disposal of chemicals/ PCB's | 28 | 43 | 50 | 31 | 62 | 24 |
| Use/ control of toxic chemicals/ PCB's | 26 | 40 | 44 | 28 | 57 | 33 |
| Air pollution | 24 | 44 | 51 | 31 | 33 | 38 |
| Use of herbicides to control vegetation | 20 | 21 | 24 | 15 | 27 | 13 |
| Acid rain | 19 | 28 | 38 | 13 | 22 | 16 |
| Transportation of hazardous wastes | 19 | 28 | 34 | 10 | 48 | 14 |
| Problems with water levels | 15 | 16 | 18 | 9 | 37 | 8 |
| Transmission/ power lines | 14 | 15 | 18 | 11 | 17 | 6 |
| Impact of transmission lines on agricultural land | 10 | 11 | 14 | 7 | 15 | 3 |
| Health effects of transmission lines | 9 | 15 | 19 | 9 | 24 | 6 |
| None | 12 | 11 | 12 | 16 | 1 | 7 |
| Other | 10 | 12 | 14 | 10 | 3 | 9 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

Aided Response

- Respondents were also given a list of five specific environmental issues which are affected by B.C. Hydro's operations and asked to say which one is of greatest concern to them. The results, given in the following table, are entirely consistent with the answers to the unaided, open ended question described in the previous table.

| Which One Of The Following Environment Related B.C. Hydro Operations Is Of Most Concern To You? | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Impact on wildlife/trees from construction of hydro electric dams on river systems | 57 | 47 | 52 | 47 | 47 | 30 |
| Impact of the flooding of agricultural lands caused by the construction of dams | 32 | 23 | 16 | 36 | 22 | 31 |
| Impact on the environment of transmission lines | 6 | 5 | 7 | 3 | 1 | 3 |
| Visual detraction of transmission towers and lines | 5 | 2 | 2 | 1 | 3 | 2 |
| Impact of B.C Hydro's generating facilities on air pollution | N/A | 23 | 23 | 11 | 27 | 35 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## SERIOUSNESS OF SPECIFIC ENVIRONMENTAL ISSUES ASSOCIATED WITH B.C. HYDRO

- People were asked to indicate how serious an environmental impact they feel B.C. Hydro's operations have in each of several areas.

- Results are presented in the form of an index, such that the closer the number is to one hundred, the greater the level of seriousness or concern is about that issue or area of Hydro's impact on the environment.

- Overall, the factors which emerge as the most serious environmental problems associated with B.C. Hydro's operations include:

    * the use of toxic chemicals such as PCB's (Index of seriousness: 79)
    * the disposal of toxic wastes by B.C. Hydro (76)
    * acid rain/ air pollution or sulphur emissions from coal generating stations (74)
    * transportation of toxic wastes by B.C. Hydro (70)
    * disposal of large volume/ solid waste/ ash from coal power stations (65)
    * water pollution from spills or leaks from generating stations (63)
    * the use of herbicides to control vegetation around power lines by B.C. Hydro (62).

- These factors are considered by people to be the most serious environmental problems associated with B.C. Hydro's operations. These findings indicate that B.C. Hydro must demonstrate greatest sensitivity to public concerns about environmental issues which relate to the use of toxic materials and toxic wastes, acid rain and air pollution, water pollution and the use of herbicides.

- The environmental issues which are considered to be less serious include:

    * the environmental impact of constructing and operating water powered or hydro electric dams (48)
    * impact of high voltage transmission line facilities/ power lines (47)
    * controlling of water levels at and below dam sites (45).

- The seriousness of each of the issues evaluated is strongest among:

    * people with an unfavourable image of B.C. Hydro
    * residents of Vancouver Island and the Northern Interior
    * environmental activists
    * women.

- Men and residents of the Southern Interior are the least likely to rate these issues highly in terms of seriousness.

| Level Of Seriousness Of Environmental Impact Of The Following Aspects Of B.C. Hydro's Operations | Index of Seriousness *(maximum = 100)* | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| The use of toxic chemicals such as PCB's | 79 | 77 | 85 | 88 | 73 |
| Disposal of toxic wastes by B.C. Hydro | 76 | 75 | 82 | 83 | 69 |
| Acid rain/ air pollution or sulphur emissions from coal generating stations | 74 | 74 | 79 | 77 | 66 |
| Transportation of toxic wastes by B.C. Hydro | 70 | 70 | 74 | 79 | 63 |
| Disposal of large volume/ solid waste/ ash from coal power stations | 65 | 67 | 66 | 63 | 57 |
| Water pollution from spills or leaks from generating stations | 63 | 64 | 66 | 68 | 52 |
| The use of herbicides to control vegetation around power lines by B.C. Hydro | 62 | 60 | 70 | 68 | 55 |
| Air pollution from natural gas electricity generating stations | 58 | 59 | 60 | 60 | 49 |
| Impact of Hydro installations on agricultural lands | 54 | 54 | 61 | 57 | 43 |
| Health effects of living near transmission lines | 52 | 54 | 55 | 52 | 38 |
| The environmental impact of constructing and operating water powered or hydro electric dams | 48 | 47 | 52 | 54 | 45 |
| Impact of high voltage transmission line facilities/ power lines | 47 | 48 | 51 | 44 | 37 |
| Controlling of water levels at and below dam sites | 45 | 45 | 49 | 50 | 42 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## LEVEL OF CONCERN ABOUT SPECIFIC ENVIRONMENTAL ISSUES BY GEOGRAPHIC PROXIMITY

- People were asked to indicate how concerned they would be about each of a series of environmental issues or environmentally sensitive projects involving B.C. Hydro's operations if the areas affected are close or remote from where they live.

- Respondents were asked to indicate whether they would not be concerned at all, a little concerned, somewhat concerned, very concerned, or extremely concerned. The results are presented in the form of an index such that the closer the number is to one hundred, the higher the level of concern for each issue.

- In general, the data collected indicates that public concern about all of the environmental issues evaluated is very much a function of geography or how close to home or directly affected people are by the issue or project. Issues for which concern levels vary most depending on how close to home the impact or affects are, are the following:

    * locating of a generating facility
    * locating of a transmission line
    * locating of a toxic or hazardous waste disposal site.

- It is noteworthy, as well, that the environmental issues which generate the greatest concern are the same regardless of whether the impact area is close to home or elsewhere, even though the overall concern level drops when the impact is elsewhere.

- Those subgroups most likely to indicate a high level of concern in each of these cases, both when in reference to being close to where they live, and when in reference to being somewhere else include:

    * residents of Vancouver Island and the Northern Interior
    * those with an unfavourable image of B.C. Hydro
    * environmental activists
    * women, especially working women.

- Residents of the Southern Interior generally express less concern than average about each situation evaluated.

| Level Of Concern About ... | Index of Concern (Max. = 100) | Differential Score |
|---|---|---|
| B.C. Hydro locating a generating facility close to where you live | 53 | -15 |
| B.C Hydro locating a generating facility somewhere else | 38 | |
| B.C Hydro locating a transmission line near where you live | 51 | -15 |
| B.C Hydro locating a transmission line somewhere else | 36 | |
| B.C. Hydro locating a toxic or hazardous waste disposal site near where you live | 86 | -14 |
| B.C. Hydro locating a toxic or hazardous disposal site somewhere else | 72 | |
| Acid rain or air pollution from a coal or gas generating station near where you live | 82 | -10 |
| Acid rain or air pollution from a coal or gas generating station somewhere else | 72 | |
| The use of toxic chemicals near where you live | 85 | -10 |
| The use of toxic chemicals somewhere else | 75 | |
| Water pollution from spills or leaks from generating stations near where you live | 79 | -8 |
| Water pollution from spills or leaks from generating stations somewhere else | 71 | |
| *Base: (595)* | | |

## LEVEL OF SATISFACTION WITH B.C. HYDRO'S HANDLING OF ENVIRONMENTAL ISSUES

- People were asked to indicate how satisfied they are with the way B.C. Hydro handles each of a series of environmental issues from an environmental protection standpoint.

- The environmental issues for which people are least satisfied with B.C. Hydro's performance from an environmental protection stand point include:

  * disposal of toxic or hazardous wastes, (Index of satisfaction = 45)
  * use and control of toxic or hazardous chemicals like PCB's (46)
  * transportation of toxic or hazardous wastes like PCB's (49)
  * use of herbicides to control vegetation around power lines (49).

- The environmental issues with which people are most satisfied with B.C. Hydro's performance from an environmental protection standpoint include:

  * environmental impact of constructing and operating water powered or hydro electric dams (61)
  * impact of high voltage transmission line facilities/ power lines (60)
  * control of all pollution from gas generating stations (55)
  * air pollution from natural gas electricity generating plants (55).

| Satisfaction Level With The Way B.C. Hydro Handles The Following From An Environmental Protection Standpoint | Index of Satisfaction *(Max = 100)* | % of British Columbians | | | | |
|---|---|---|---|---|---|---|
| | | LEVEL OF SATISFACTION | | | | |
| | | Very satisfied | Some-what satisfied | Neither satisfied not dis-satisfied | Some-what dis-satisfied | Very dis-satisfied |
| The environmental impact of constructing and operating water powered or hydro electric dams | 61 | 8 | 43 | 37 | 8 | 4 |
| The impact of high voltage transmission line facilities/ power lines | 60 | 8 | 38 | 42 | 6 | 4 |
| Control of all pollution from gas generating stations | 55 | 3 | 34 | 48 | 9 | 6 |
| Air pollution from natural gas electricity generating plants | 55 | 5 | 34 | 45 | 8 | 7 |
| The use of herbicides to control vegetation around power lines | 49 | 4 | 32 | 35 | 14 | 14 |
| The transportation of toxic or hazardous wastes like PCB's | 49 | 4 | 31 | 39 | 11 | 15 |
| The use and control of toxic or hazardous chemicals like PCB's | 46 | 4 | 29 | 33 | 15 | 19 |
| The disposal of toxic or hazardous wastes | 45 | 3 | 27 | 37 | 14 | 18 |
| *Base: (595)* | | | | | | |

- People who have an unfavourable image or B.C. Hydro and environmental activists express a lower level of satisfaction from an environmental protection standpoint for the way B.C. Hydro handles these issues.

## REASONS FOR BEING DISSATISFIED WITH HYDRO'S TREATMENT OF VARIOUS ENVIRONMENTAL ISSUES

### The Environmental Impact Of Constructing And Operating Hydro Electric Dams

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the environmental impact of constructing and operating water powered or hydro electric dams, which makes up 12% of the sample include:

    * threat to the preservation of wildlife (23%)
    * effects aren't adequately researched/ don't know the long term impact (16%)
    * waste of good farm land (16%)
    * harmful to the environment (15%)
    * not enough care taken in cleaning up after construction (6%)
    * harmful to salmon run/fish (6%)
    * harmful to waterways (5%)
    * preserving land and lakes from development (4%).

### The Use Of Herbicides To Control Vegetation Around Power Lines

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the environmental impact of the use of herbicides to control vegetation around power lines, which makes up 28% of the sample, include:

    * threat to the preservation of wildlife (21%)
    * it's a health hazard (19%)
    * too dangerous (14%)
    * there are better alternatives to control vegetation (13%)
    * damages agricultural land (11%)
    * harmful to the environment (9%)
    * gets into the water system (8%)
    * effects aren't adequately researched/ don't know the long term impact (7%).

## The Use And Control Of Toxic Or Hazardous Chemicals

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the use and control of toxic or hazardous chemicals, which makes up 34% of the sample, include:

    * it's a health hazard (18%)
    * too dangerous (17%)
    * harmful to the environment (14%)
    * problems related to transporting, storing and disposing of chemicals (14%)
    * there are better alternatives (6%)
    * not enough regulation on the use of PCB's (6%)
    * effects aren't adequately researched/ don't know the long term impact (5%)
    * chance of a spill or leak too great (5%).

## The Transportation Of Toxic Or Hazardous Wastes

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the transportation of toxic or hazardous wastes, which makes up 26% of the sample, include:

    * too dangerous (16%)
    * it's a health hazard (15%)
    * not enough care is taken with them (11%)
    * there are better and safer ways of transporting them (7%)
    * harmful to the environment (6%)
    * chance of a spill or leak too great (6%)
    * not enough regulation on the transport of PCB's (6%)
    * public not informed about the transport of PCB's (5%).

The Disposal Of Toxic Or Hazardous Wastes

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the disposal of toxic or hazardous wastes, which makes up 32% of the sample, include:

  * not enough care taken when PCB's are disposed (12%)
  * not enough regulation on the disposal of PCB's (10%)
  * chance of a spill or leak too great (10%)
  * harmful to the environment (9%)
  * it's a health hazard (8%)
  * need to develop safer storage methods (8%)
  * damages the water system (5%)
  * too dangerous (5%)
  * public not informed about the disposal of PCB's (4%).

The Control Of All Pollution From Gas Generating Stations

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the control of all pollution from gas generating stations, which makes up 14% of the sample, include:

  * causes air pollution/ acid rain (27%)
  * it's a health hazard (11%)
  * harmful to the environment (9%)
  * threat to the preservation of wildlife (7%)
  * not enough regulation (7%)
  * effects aren't adequately researched (5%)
  * not enough care is taken (5%).

The Impact Of High Voltage Transmission Line Facilities

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the impact of high voltage transmission line facilities, which makes up 10% of the sample, include:

    * it's a health hazard (31%)
    * threat to the preservation of wildlife (15%)
    * they offer no protection from accident (13%)
    * too dangerous (9%)
    * they should be underground (6%)
    * effects aren't adequately researched (4%)
    * right-of-ways are a waste of good farmland (4%).

Air Pollution From Natural Gas Electricity Generating Plants

- The primary reasons cited among those who are very or somewhat dissatisfied with the way Hydro handles the air pollution from natural gas electricity generating plants, which makes up 15% of the sample, include:

    * causes air pollution/ acid rain (23%)
    * it's a health hazard (15%)
    * harmful to the environment (13%)
    * not enough regulation (6%)
    * emission control devices are not up to date (6%)
    * hear too many bad stories (4%)
    * threat to the preservation of wildlife (4%).

## ENVIRONMENTAL CONDUCT OF B.C. HYDRO

- A large majority of British Columbians (77%) say that B.C. Hydro should not simply comply with existing regulations to protect the environment, but should instead play a leadership role by setting an example for others to follow in its approach to the environment.

| Conduct Expected From B.C. Hydro When It Comes To Environmental Issues | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Expect B.C. Hydro to play a leadership role and set an example for others to follow in its approach to the environment | 77 | 73 | 82 | 80 | 82 |
| Expect B.C. Hydro to comply with existing regulations to protect the environment, but not necessarily play a leadership role | 23 | 27 | 18 | 20 | 18 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- This feeling is especially pronounced in:

  * environmental activists (84%)
  * high income earners (83%)
  * Vancouver Island residents (82%).

## HIGH VOLTAGE TRANSMISSION LINES

### Priority Ranking Of Factors Regarding Transmission Lines

- Respondents were given a list of five factors related to high voltage transmission lines and asked to rank them according to how concerned they are about each. The data following presents the average concern ranking for each factor. The factors with the lowest ranking represent those which generate the strongest concern.

- The factors which elicit greatest concern, in order of priority are:
  - * possible health effects of living and working near such lines
  - * the use of herbicides to control vegetation around such lines
  - * the environmental damage that results from constructing such lines
  - * the impact of these installations on agricultural land and farming.

- The unattractiveness of such lines is not as much of a concern as the above-mentioned factors.

| Concern About The Following Aspects Of High Voltage Transmission Lines | Average Concern Ranking *(Highest = 1.0, Lowest = 5.0)* | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Possible health effects of living and working near such lines | 2.1 | 2.2 | 2.2 | 1.9 | 2.0 |
| The use of herbicides to control vegetation around such lines | 2.4 | 2.5 | 2.2 | 2.0 | 2.4 |
| The environmental damage that results from constructing such lines | 2.9 | 2.8 | 3.0 | 2.9 | 3.0 |
| The impact of these installations on agricultural land and farming | 3.2 | 3.2 | 3.0 | 3.2 | 3.1 |
| The unattractiveness of such lines | 4.5 | 4.4 | 4.6 | 4.7 | 4.5 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## Health Concerns Of Transmission Lines

- When asked, most respondents that have an opinion (41%) indicate that they believe that high voltage transmission lines have a detrimental effect on the health of the people living or working near them.

| Incidence Of Believing That High Voltage Transmission Lines Have Any Detrimental Effects On The Health Of People Living Or Working Near Them | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 41 | 38 | 48 | 41 | 41 |
| No | 26 | 24 | 30 | 29 | 27 |
| Don't know/ no opinion | 33 | 38 | 22 | 30 | 32 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most inclined to believe that high voltage transmission lines have a detrimental effects on health include:

  * those with an unfavourable image of B.C. Hydro (61%)
  * environmental activists (51%)
  * those with incomes in excess of $35,000 (47%)
  * working women (51%)
  * those with incomes of less than $20,000 (49%)
  * demand side advocates (48%)
  * residents of Vancouver Island (48%)
  * strong conservationists (48%).

- When asked to differentiate between whether they are concerned about the health effects of all types of transmission lines or just high voltage lines, a small majority of respondents (54%) who had expressed concern in the previous question say that they are concerned about the health effects of all types of transmission lines.

| Concern About The Health Effects Of Different Kinds Of Transmission Lines | % of British Columbians who believe that high voltage transmission lines have a detrimental effect on the health of people living or working near them | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| More concerned about the health effects of high voltage lines | 46 | 53 | 43 | 33 | 30 |
| Concerned about the health effects of all types of transmission lines | 54 | 46 | 57 | 67 | 71 |
| *Base:* | *246* | *105* | *60* | *41* | *40* |

Location Of Transmission Lines

- Respondents were also asked what areas B.C. Hydro should try to avoid when deciding where to locate transmission lines. To do this, they were given a list of eight types of areas and asked to rank them in the order that it is most important for B.C. Hydro to avoid.

- The area that is ranked as most important to avoid is populated areas such as cities, towns and villages (average rank = 2.3).

- Other important areas to avoid are:

  * agricultural lands (3.5)
  * recreational areas (4.3)
  * forested areas (4.6).

- Those areas that are considered the least important to avoid are:

  * lands containing valuable mineral resources (5.8)
  * heritage areas such as archaeological sites (5.4)
  * marsh lands or wetlands (5.2).

| Importance Of Avoiding Certain Areas When Deciding Where To Locate A Transmission Line | Average Rank *(Highest = 1.0, Lowest = 8.0)* | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Populated areas such as cities, towns, villages | 2.3 | 2.5 | 2.2 | 2.0 | 2.0 |
| Agricultural lands | 3.5 | 3.7 | 3.2 | 3.3 | 3.3 |
| Recreational areas | 4.3 | 4.4 | 4.2 | 4.4 | 4.0 |
| Forested areas | 4.6 | 4.4 | 4.6 | 4.9 | 4.9 |
| Scenic areas | 5.0 | 4.9 | 5.2 | 5.1 | 4.8 |
| Marsh lands or wetlands | 5.2 | 5.1 | 5.1 | 4.7 | 5.6 |
| Heritage areas such as archaeological sites | 5.4 | 5.5 | 5.3 | 5.3 | 5.2 |
| Lands containing valuable mineral resources | 5.8 | 5.6 | 6.2 | 6.2 | 5.9 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## B.C. HYDRO AND TOXIC WASTE

### Amount Of Toxic Waste Produced By B.C. Hydro

- Virtually all British Columbians believe that B.C. Hydro produces at least a little toxic waste (93%). Furthermore, most believe that it produces more than just a little (72%).

| Amount Of Toxic Waste That B.C. Hydro Is Believed To Produce | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| A lot | 15 | 17 | 14 | 12 | 15 |
| Some | 57 | 55 | 56 | 61 | 63 |
| A little | 21 | 22 | 22 | 23 | 17 |
| None | 3 | 2 | 2 | 2 | 5 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- There is very little sub-group variation in perceptions about the amount of toxic waste that B.C. Hydro is believed to produce.

Toxic Materials Associated With B.C. Hydro

- Respondents were asked to indicate what toxic materials they believe B.C. Hydro works with. The toxic material named more often then any other was PCB's. Seven in ten respondents (69%) indicate that they believe B.C. Hydro uses PCB's.

- Other frequently mentioned materials are herbicides (47%) and pesticides (34%).

- The least mentioned materials include:

  * uranium (8%)
  * heavy water (10%)
  * sulphur dioxide emissions (17%).

| Types Of Toxic Material B.C. Hydro Is Believed To Work With | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| PCB's | 69 | 72 | 64 | 78 | 59 |
| Herbicides | 47 | 46 | 48 | 63 | 38 |
| Pesticides | 34 | 41 | 19 | 26 | 31 |
| Acid rain | 21 | 28 | 6 | 18 | 19 |
| Ash from coal plants | 18 | 22 | 6 | 24 | 13 |
| Sulphur dioxide emissions | 17 | 20 | 7 | 20 | 16 |
| Heavy water | 10 | 13 | 2 | 9 | 10 |
| Uranium | 8 | 11 | 2 | 7 | 5 |
| Other | 6 | 6 | 10 | 3 | 5 |
| Don't know | 19 | 15 | 24 | 14 | 30 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

## B.C. HYDRO AND PCB'S

### Knowledge Of PCB's

- When asked, almost one half of British Columbians (47%) say that they know at least something about PCB's. Another 41% say they know very little and 11% say they know nothing. That is, people's knowledge of PCB's is fairly limited.

| Amount Known About PCB's | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| A great deal | 7 | 11 | 3 | 4 | 2 |
| Something | 40 | 45 | 34 | 45 | 30 |
| Very little | 41 | 34 | 54 | 41 | 52 |
| Nothing | 11 | 11 | 9 | 10 | 16 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Weak conservationists (25%) and those with no post secondary education (16%) are the most likely to say that they know nothing about PCB's.

- Those with personal incomes of more than $35,000 annually (5%), environmental activists (6%), and those with some post secondary education (6%) are the least likely to say that they know nothing about PCB's.

Confidence In B.C. Hydro's Management Of PCB's

- In order to determine how much confidence the public has in B.C. Hydro's ability to safely manage the handling of PCB's, respondents were given a verbal scale and asked to rate their confidence of B.C. Hydro in this regard.

- Just under two thirds (63%) of British Columbians express at least some confidence in B.C. Hydro's ability to safely manage the handling of PCB's. That is, there is a fair amount of confidence in B.C. Hydro in this regard, but not a strong vote of confidence.

| How Much Confidence Do You Have In B.C Hydro That It Is Managing The Safe Handling Of PCB's? | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very confident | 8 | 9 | 6 | 7 | 7 |
| Somewhat confident | 55 | 55 | 53 | 51 | 62 |
| Not very confident | 25 | 24 | 29 | 28 | 26 |
| Not confident at all | 10 | 11 | 10 | 13 | 4 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those least likely to feel confident of B.C. Hydro's ability to safely handle PCB's includes:

  * those with an unfavourable image of B.C. Hydro (51%)
  * environmental activists (47%)
  * those with some post secondary education (42%)
  * demand side advocates (42%).

## PUBLIC PARTICIPATION IN DECISIONS ABOUT THE HANDLING OF WASTES FROM B.C. HYDRO FACILITIES

- Most British Columbians (57%) agree that there is not enough public input in decisions regarding where and how wastes from B.C. Hydro facilities should be handled.

| Amount Of Public Participation In Deciding Where And How Wastes From B.C. Hydro Facilities Should Be Handled | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Too much | 4 | 3 | 5 | - | 5 |
| About right | 25 | 32 | 16 | 14 | 18 |
| Not enough | 57 | 51 | 65 | 68 | 61 |
| Don't know | 14 | 14 | 14 | 19 | 16 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Those most likely to hold the view that there is not enough public participation in this process include:

  * those with an unfavourable image of B.C. Hydro (69%)
  * residents of the Northern Interior (68%)
  * environmental activists (67%)
  * demand side advocates (65%)
  * residents of Vancouver Island (65%)
  * those with a union member in the household (63%).

## HIGHER RATES VS. REDUCING POLLUTION

- When asked if they would be willing to pay slightly higher electricity rates in order to pay for the cost of new measures to reduce pollution in Hydro's operations, three in five British Columbians (59%) say "yes". This proportion is up significantly compared to one year ago when two in five (42%) said "yes".

- Clearly these findings are indicative of the growing concern about the quality of the environment in B.C.

| Would Be Willing To Pay Slightly Higher Electricity Rates In Order To Pay For New Pollution Reducing Measures | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 42 | 59 | 60 | 59 | 49 | 57 |
| No | 58 | 41 | 40 | 41 | 48 | 42 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- Not surprisingly, environmental activists (65%) are the most likely to approve of such an increase in rates.

## B.C. HYDRO'S INFORMATION TO THE PUBLIC ABOUT ENVIRONMENTAL ISSUES CONCERNING B.C. HYDRO

- Roughly one third of British Columbians (33%) say that they are aware that B.C. Hydro provides information to the public about environmental issues concerning B.C. Hydro.

| Incidence Of Knowing If B.C. Hydro Provides Information To The Public About Environmental Issues Concerning B.C. Hydro | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 33 | 31 | 43 | 32 | 30 |
| No | 29 | 27 | 30 | 33 | 32 |
| Don't know | 38 | 43 | 27 | 35 | 38 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Residents of Vancouver Island are the most likely to say that they are aware of this information program.

- When asked if they had actually seen any information from B.C. Hydro about the environment, a similar proportion that say they are aware of the program also say that they have seen some of this information (33%).

- The majority, however, are either unaware of or have not seen such information.

| Incidence Of Having Seen Any Information From B.C. Hydro About Its Environmental Programs And Practices | % of British Columbians | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 33 | 32 | 37 | 35 | 30 |
| No | 66 | 67 | 59 | 64 | 70 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Among those respondents that are aware that B.C. Hydro provides information about environmental issues to the public, most (78%) say that they are satisfied with this information.

| Satisfaction With The Information B.C. Hydro Provides | % of British Columbians who are aware that B.C. Hydro provides information to the public about environmental Issues concerning B.C. Hydro | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very satisfied | 12 | 13 | 8 | 9 | 20 |
| Somewhat satisfied | 66 | 65 | 72 | 62 | 64 |
| Somewhat dissatisfied | 10 | 12 | 6 | 17 | 8 |
| Very dissatisfied | 4 | 4 | 6 | 3 | - |
| Don't know | 8 | 7 | 9 | 9 | 7 |
| *Base:* | *198* | *85* | *53* | *31** | *29** |

**Caution: small bases*

## LEVEL OF TRUST IN SPECIFIC SOURCES OF INFORMATION REGARDING B.C. HYDRO AND ENVIRONMENTAL ISSUES

- People were asked to use a one to ten scale to indicate how much trust and confidence they have in each of a variety of sources of information about how B.C. Hydro's activities or operations affect the environment. A rating of ten means they have a great deal of trust and confidence in that source of information, and a rating of one means they have very little trust and confidence in that source of information. The numbers between represent the degrees between.

- The sources of information in which the people of B.C. place the greatest trust and confidence for information about how B.C. Hydro's activities and operations affect the environment are scientists and environmental groups, two groups which are perceived to be unrelated to B.C. Hydro, and to the media.

- The sources which are trusted by B.C. residents to a secondary degree are outlined below, in the order in which they are trusted:

    * B.C. Hydro
    * community leaders
    * T.V. reports
    * newspaper reports
    * friends
    * federal government
    * provincial government.

- Although B.C. Hydro receives only a moderate level of public trust and confidence regarding what it has to say about the environment, it is interesting to note that it is actually more trusted than the media. Overall, it has fairly good credibility relative to other groups.

| Level Of Trust And Confidence In What _____ Has to Say About How B.C. Hydro's Activities And Operations Affect The Environment | Average Rating of trust and confidence *(Maximum = 10.0)* | | | | |
|---|---|---|---|---|---|
| | Total 1989 | REGION | | | |
| | | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Scientists | 7.3 | 7.4 | 7.0 | 7.6 | 7.3 |
| Environmental groups | 6.9 | 7.2 | 6.4 | 7.0 | 6.4 |
| B.C. Hydro | 5.9 | 6.3 | 5.2 | 5.9 | 5.5 |
| Community leaders | 5.6 | 5.8 | 5.3 | 5.3 | 5.4 |
| T.V. reports | 5.6 | 5.9 | 5.2 | 5.5 | 5.3 |
| Newspaper reports | 5.5 | 5.8 | 4.9 | 5.3 | 5.1 |
| Friends | 5.4 | 5.7 | 5.3 | 4.9 | 4.6 |
| Federal government | 4.9 | 5.1 | 4.2 | 4.8 | 5.1 |
| Provincial government | 4.8 | 5.1 | 4.1 | 4.7 | 5.2 |
| *Base:* | *595* | *275* | *124* | *98* | *98* |

- Among the subgroups analyzed, the following tend to rate B.C. Hydro lower in terms of trust and confidence in what they have to say about how their activities and operations affect the environment:

  * those with an unfavourable image of B.C. Hydro (average rating = 5.4)
  * Vancouver Island residents (5.2)
  * environmental activists (5.3).

# SECTION NINE

# B.C. HYDRO'S PUBLIC INFORMATION PROGRAMS

## LEVEL OF KNOWLEDGE ABOUT B.C. HYDRO'S INFORMATION PROGRAMS

- As was the case a year ago, two thirds (65%) of British Columbians are aware that B.C. Hydro provides information about energy to the public.

- Regionally this number varies from a low of 58% in Vancouver to a high of 84% on Vancouver Island.

| Are You Aware That B.C. Hydro Provides Information About Energy To The Public | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Yes | 66 | 65 | 58 | 84 | 68 | 67 |
| No | 25 | 21 | 26 | 11 | 20 | 17 |
| Don't know | 9 | 14 | 17 | 5 | 12 | 16 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

- The segments that are most likely to know about B.C. Hydro's information programs include:

  * environmental activists (75%)
  * those earning in excess of $35,000 a year (73%)
  * homeowners (73%)
  * those over 35 (72%)
  * those with some post secondary education (72%).

## SATISFACTION WITH PUBLIC INFORMATION PROGRAMS

- Among those who know about the information programs, (77%) say they are very or somewhat satisfied with these programs. This is comparable to the response obtained a year ago.

- Based on these findings, the same conclusion that was evident in February 1988 is applicable in January 1989, namely that the information programs themselves are excellent. What is needed is a promotional campaign to publicize the existence of the programs.

| Level Of Satisfaction With Information Provided By B.C. Hydro On Energy | % of British Columbians aware of B.C. Hydro's information programs | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Very satisfied | 25 | 14 | 14 | 15 | 16 | 9 |
| Somewhat satisfied | 54 | 63 | 63 | 62 | 76 | 58 |
| Somewhat dissatisfied | 11 | 12 | 14 | 7 | 6 | 15 |
| Very dissatisfied | 4 | 4 | 4 | 5 | - | 6 |
| Don't know | 7 | 8 | 6 | 12 | 3 | 11 |
| *Base:* | *470* | *394* | *158* | *104* | *66* | *66* |

## WHAT INFORMATION PEOPLE WANT AND HOW THEY WANT TO RECEIVE IT

### Information Needs/Interests

- Respondents were asked in an unaided, open-ended question, what type of information they would be interested in receiving from B.C. Hydro.

- It is interesting to note the large number of different responses that were given. These responses suggest that the public is interested in all aspects of B.C. Hydro operations.

- The areas about which people want to learn about the most parallel their major concerns about B.C. Hydro. In order of priority, they are:

    * rates (51%)
    * environmental protection policies/ programs (44%)
    * future plans/ forecasting (38%)
    * conservation of electricity/ conservation tips (34%)
    * energy efficiency (33%).

| Type Of Information You Would Like To Receive From B.C. Hydro Concerning The Company Or Any Other Aspect Of Its Operations Or Service | % of British Columbians | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| Rates | 47 | 51 | 55 | 40 | 49 | 49 |
| Future plans/ forecasting | 41 | 38 | 40 | 29 | 47 | 38 |
| Environmental protection policies/ programs | 35 | 44 | 46 | 37 | 63 | 37 |
| Conservation of electricity/ conservation tips | 30 | 34 | 42 | 17 | 39 | 21 |
| Energy efficiency | 28 | 33 | 41 | 18 | 44 | 20 |
| Operational efficiency | 28 | 17 | 19 | 14 | 15 | 14 |
| Public involvement/ opportunities for public involvement | 28 | 23 | 29 | 13 | 28 | 13 |
| Future energy sources/ options | 27 | 28 | 32 | 21 | 35 | 17 |
| Billing procedures information | 23 | 22 | 27 | 13 | 32 | 9 |
| Research and development | 22 | 26 | 29 | 24 | 29 | 19 |
| Information about procedures to follow or who to contact at B.C Hydro when problems arise | 20 | 26 | 35 | 14 | 30 | 8 |
| Safety related information | 20 | 27 | 34 | 12 | 44 | 13 |
| Acid rain | 17 | 27 | 33 | 14 | 34 | 20 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |

## Preferred Medium For Delivering Information

- Respondents were given a list of the four different means by which information could be made available to them by B.C. Hydro. For each means, respondents were asked if they were very interested, somewhat interested, a little interested or not interested at all in receiving information in this way. Results were tabulated in the form of an interest index such that the closer the index score is to 100, the higher the level of interest expressed.

- As the table below shows, there continues to be relatively little interest in B.C. Hydro using newspapers or television ads to communicate with the public in comparison with an insert with an electricity bill or a piece of direct mail.

- This suggests that B.C. Hydro should focus on producing attractive, highly readable bill inserts and direct mail pieces on the subjects of greatest concern to British Columbians, and be careful about doing too much in the way of formal print or electronic media advertising campaigns.

| In What Form Would You Like To Receive Information Material From B.C Hydro? | Index of Interest *(Maximum = 100)* | | | | | |
|---|---|---|---|---|---|---|
| | TOTAL | | REGION | | | |
| | Feb. 1988 | Jan. 1989 | Vanc. | Vanc. Island | North. Interior | South. Interior |
| In an insert with your electricity bill | 72 | 77 | 81 | 71 | 80 | 68 |
| In a letter or brochure mailed directly to your home | 60 | 67 | 70 | 62 | 79 | 60 |
| In television ads | 36 | 48 | 48 | 47 | 56 | 48 |
| In newspaper ads | 35 | 44 | 47 | 41 | 48 | 39 |
| *Base:* | *702* | *595* | *275* | *124* | *98* | *98* |